



Australian Government

**National Measurement
Institute**

12 Lyonpark Road, North Ryde NSW 2113

**Cancellation
Certificate of
Approval No 4/9/2**

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that the approval for use for trade granted in Certificate of Approval
No 4/9/2 issued 21 June 1999 in respect of the

Coster Model CTV 200 Water Dispensing Instrument

submitted by Environmental Goods and Services Pty Ltd
62 Murray Farm Road
Beecroft NSW 2119

has been cancelled in respect of new instruments as from 1 November 2004.

Signed by a person authorised by the Chief Metrologist
to exercise his powers under Regulation 60 of the
National Measurement Regulations 1999.

A handwritten signature in black ink, appearing to be 'J. G. T.', written in a cursive style.



National Standards Commission

Certificate of Approval

No 4/9/2

Issued under Regulation 9
of the
National Measurement (Patterns of Measuring Instruments) Regulations

This is to certify that an approval for use for trade has been granted in respect of the

Coster Model CTV 200 Water Dispensing Instrument

submitted by Environmental Goods and Services Pty Ltd
62 Murray Farm Road
Beecroft NSW 2119.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 June 2004, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 4/9/2 and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the Commission and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with the Commission's Document 106.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

DESCRIPTIVE ADVICE

Pattern: approved 5 May 1999

- A Coster model CTV 200 water dispensing instrument.

Variant: approved 5 May 1999

1. A model VRO 600 water dispensing instrument.

Technical Schedule No 4/9/2 describes the pattern and variant 1.

FILING ADVICE

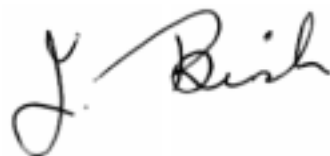
The documentation for this approval comprises:

Certificate of Approval No 4/9/2 dated 21 June 1999

Technical Schedule No 4/9/2 dated 21 June 1999 (incl. Test Procedure)

Figures 1 to 5 dated 21 June 1999

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.



TECHNICAL SCHEDULE No 4/9/2

Pattern: Coster Model CTV 200 Water Dispensing Instrument.

Submittor: Environmental Goods and Services Pty Ltd
62 Murray Farm Road
Beecroft NSW 2119.

1. Description of Pattern

A Coster model CTV 200 coin-operated water dispensing instrument approved to deliver 4 litres of purified drinking water (Figure 1). The instrument is approved for use in attended mode only.

1.1 The System (Figure 2)

The system consists of the following components:

- A purchaser's control panel which incorporates 2 push-button switches, a Coinco model 9374S-ALD multiple coin acceptor and two indicator lights. The top button allows coin refunds; the lower button initiates a delivery. The two lights indicate whether or not the instrument is operational. The top light indicates that the instrument is ready for use; the lower light indicates that the instrument is 'out of service'.
- A transparent cover provides access to the vending chamber where water is dispensed into the purchaser's container.
- An enclosure containing control relays and calibration switches.
- A Badger Recordall model M25 meter (Figure 3).
- A pressure switch, dual check valve, micron, carbon and ultraviolet light filters, and a solenoid valve are fitted.

1.2 Operation

A delivery cycle is initiated by inserting the appropriate coins and pressing the operating button on the purchaser's control panel. If a coin is not accepted it is returned through the coin return chute. Coin return will also occur if the water pressure from the mains supply drops below 190 kPa; in this case the "water supply interruption" light will be illuminated.

A delivery once started cannot be stopped by the operator. A further delivery cannot be started until the cycle is complete.

Once the operating button is pressed, the solenoid-operated valve opens, allowing purified water to be dispensed by mains water pressure. The solenoid valve is controlled by a CTR-1 pulse counter. When the required number of pulses from the M25 meter is reached, the solenoid-operated valve is closed. The required number of pulses, and therefore the calibration, is adjusted by 6 binary switches located inside the control relays enclosure.

1.3 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

1.4 Sealing Provision

Provision is made for sealing the calibration adjustments by means of destructible labels on the housing and cover of the control relays enclosure.

1.5 Markings and Notices

- (a) Instruments are marked with the following information, together in a prominent position:

Manufacturer's name or mark	Coster Engineering
Serial number of the instrument
NSC approval number	NSC No 4/9/2
Quantities for which the instrument is verified	4 L

- (b) The pattern carries the following notice adjacent to the appropriate light on the instrument control panel:

WATER SUPPLY INTERRUPTION - PLEASE CONTACT THE
STORE MANAGEMENT FOR FULL REFUND IF INTERRUPTION
OCCURS DURING DELIVERY.

2. Description of Variant 1

A model VRO 600 water dispensing instrument (Figures 4 and 5).

The model VRO 600 has an internal supply tank of 150 litres capacity. The VRO 600 operates on pump pressure of 190 kPa to dispense purified water through the system. In addition to the components of the pattern, the VRO 600 has an extra carbon filter, extra solenoid valves and a reverse osmosis unit.

TEST PROCEDURE

Instruments should be tested in conjunction with any tests specified in the Inspector's Handbook.

Maximum Permissible Error at Verification/Certification

The maximum permissible error applied during a verification/certification test is $\pm 1.5\%$ of the quantity measured.

Delivery Completion Test

Whilst a delivery is being made, press the operating button a second time; no further delivery should take place until the initial delivery is completed

Short-measure Test

For the pattern, turn off the mains water supply. Observe that the "water supply interruption" light is illuminated and ensure that the instrument is inoperative until the water supply is turned back on.

Low-level Cut-out Test

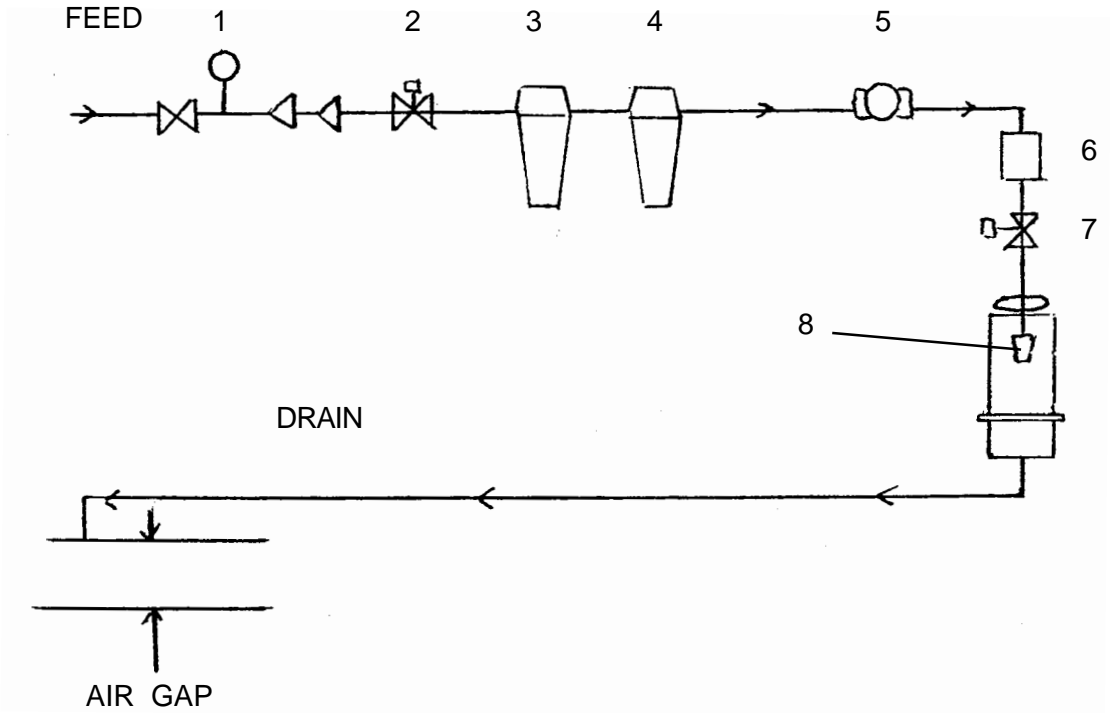
For variant 1, partially empty the supply tank so that no more than 4 litres of water is remaining and attempt a delivery. Observe that the "water supply interruption" light is illuminated and ensure that delivery of any quantity is not possible.

FIGURE 4/9/2 - 1



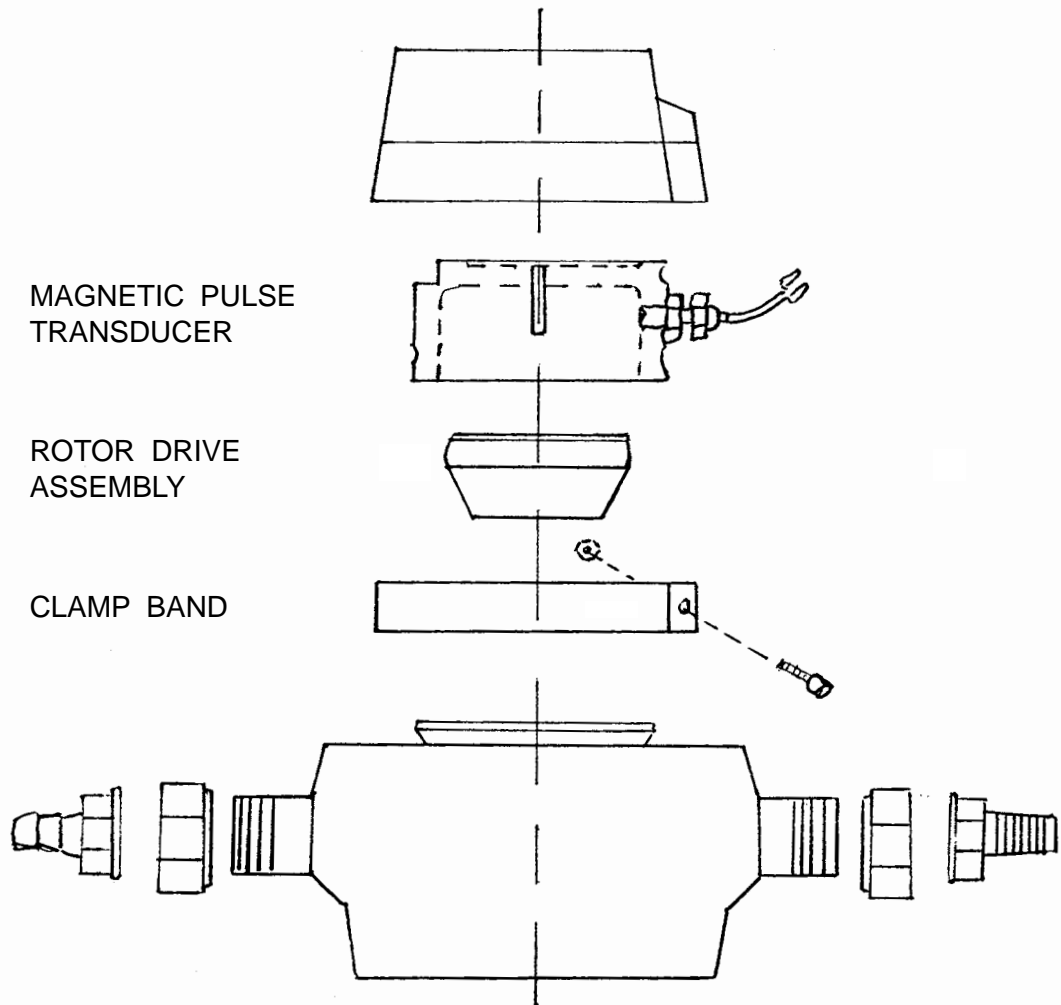
Coster Model CTV 200 Water Dispensing Instrument

FIGURE 4/9/2 - 2



1. Pressure switch
2. Solenoid valve
3. Micron filter
4. Carbon filter
5. Meter
6. Ultraviolet light filter
7. Solenoid valve
8. Dispensing nozzle

FIGURE 4/9/2 - 3



Badger Recordall Model M25 Meter

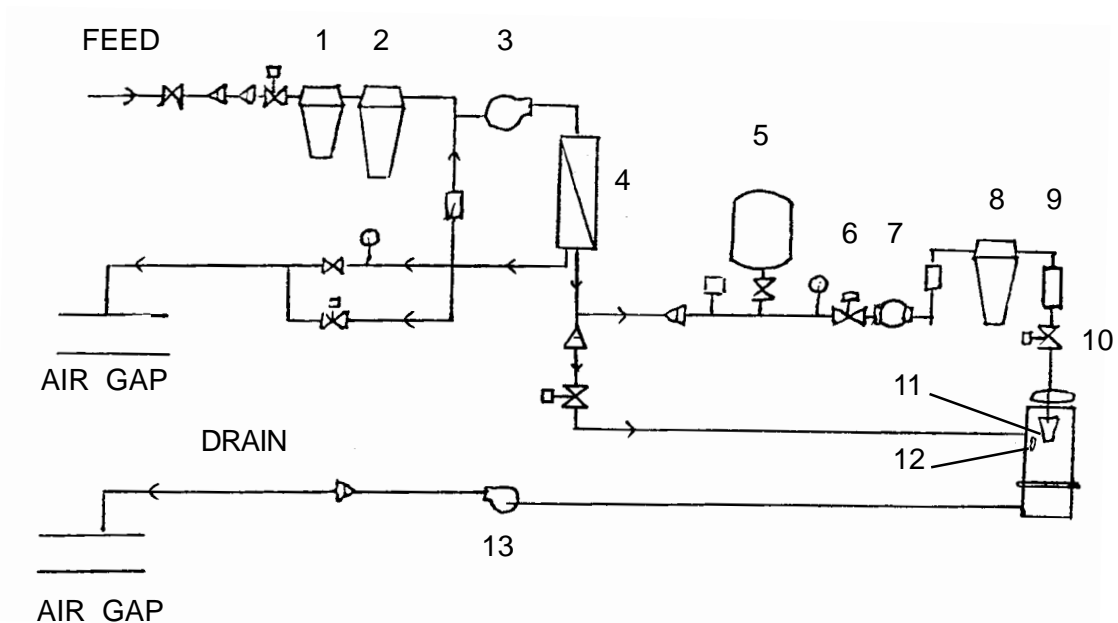
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FIGURE 4/9/2 - 4



Model VRO 600

FIGURE 4/9/2 - 5



1. Micron filter
2. Carbon filter
3. Reverse osmosis pressure pump
4. Reverse osmosis filter
5. Pressure tank
6. Solenoid valve - shut-off
7. Meter
8. Carbon filter
9. Ultraviolet light filter
10. Solenoid valve - output
11. Dispensing nozzle
12. Air gap device
13. Drain pump and motor