



Australian Government

**National Measurement
Institute**

12 Lyonpark Road, North Ryde NSW 2113

Cancellation
Certificate of Approval No 5/6S/3

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 No 5/6S/3
issued 30 July 1999 in respect of the

Precision Measures Model Multimeasure Remote-storage Spirit Dispenser

submitted by Precision Measures Limited
Level 1, 6 Buckhurst Street
South Melbourne VIC 3205

has been cancelled in respect of new instruments as from 1 September 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 5/6S/3

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

Precision Measures Model Multimeasure Remote-storage Spirit Dispenser

submitted by Precision Measures Limited
Level 1, 6 Buckhurst Street
South Melbourne VIC 3205.

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 September 2001, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 5/6S/3 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 29 August 1991

- A Precision Measures model Multimeasure remote-storage spirit dispenser.

Technical Schedule No 5/6S/3 describes the pattern.

Variation: approved 8 January 1999

1. With alternative circuitry including three reservoir probes.

Technical Schedule No 5/6S/3 Variation No 1 describes variation 1.

FILING ADVICE

Certificate of Approval No 5/6S/3 dated 14 January 1992 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 5/6S/3 dated 30 July 1999
Technical Schedule No 5/6S/3 dated 14 January 1992 (including
Test Procedure)
Technical Schedule No 5/6S/3 Variation No 1 dated 30 July 1999
Figures 1 and 2 dated 14 January 1992
Figures 3 and 4 dated 30 July 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.

A handwritten signature in black ink, appearing to read 'J. Taylor', is written over a horizontal line.



National Standards Commission

TECHNICAL SCHEDULE No 5/6S/3

Pattern: Precision Measures Model Multimeasure Remote Storage Liquor Dispenser.

Submittor: Precision Measures Limited
6 Buckhurst Street
South Melbourne VIC 3205.

1. Description of Pattern

A Precision Measures model Multimeasure remote storage liquor dispenser (Figure 1) incorporating up to 8 Measurematic electronically-controlled plunger-operated dispensing heads, each approved to deliver either 15 mL or 30 mL of brandy (including cognac and armagnac), gin, rum, vodka or whisky (whiskey).

1.1 Operation

A full quantity of liquor is measured by the measuring chamber, sealed by inlet and outlet valves which are operated by the internal timing mechanism, and are independent of the operator's control. A delivery once started cannot be stopped by the operator, and the operating plunger is rendered inoperative throughout this cycle. A delivery having been made, a further delivery cannot be started until the measuring chamber has had sufficient time to refill and the automatic internal interlocks are released.

At the commencement of the delivery cycle, which is activated by the operator, the inlet valve closes and the outlet valve opens and remains open for approximately half the cycle, during which time the delivery of liquor is completed. The outlet valve then closes and the inlet valve opens allowing the measuring chamber to fill.

1.2 The System

Each Measurematic dispensing head (Figure 2) includes a measuring chamber supplied by a reservoir and solenoid valve. The internal valving arrangement in the dispensing head, when activated by a motorised cam-valving mechanism, allows a measured quantity of liquor to be dispensed.

Liquor from the bulk containers, which may be in a remote location, is supplied to the reservoir through plastic or stainless steel tubing, by a diaphragm or piston pump which is either electrically or compressed-gas powered (as shown in Figure 2). Alternatively, the bulk containers may be pressurised, in which case a pump is not required. The bulk containers may be of plastic, "bag-in-box" (cask) or stainless steel construction.

Flow of liquor into the reservoir is controlled by the solenoid valve. When the solenoid valve is closed the flow is stopped; when the valve is open, the reduced pressure in the supply line causes liquor to flow into the reservoir.

The solenoid valve is controlled by the electronic circuitry which receives signals from 4 probes inserted into the reservoir (Figure 2). The 4 probes perform the following functions:

- Probe A controls the electronic circuitry. ("common" probe)
- Probe B signals a low level condition (though still sufficient for at least 3 complete deliveries) and causes the solenoid valve to open and fill the reservoir. If the fluid level falls below this probe the dispenser is rendered inoperable after completing any delivery in progress plus another delivery. If the low level condition continues for more than 2 seconds an audio/visual signal is initiated to alert the operator.
- Probe C signals a full level condition and causes the solenoid valve to close when the reservoir is full.
- Probe D signals an overflow fluid level condition and initiates an audio/visual signal to alert the operator.

1.3 Markings

Instruments are marked with the following, together in a prominent position:

Manufacturer's name or mark
Serial number
NSC approval number

NSC No 5/6S/3

In addition, each dispensing head is marked with the pour size for which it is verified, clearly visible to the vendor and purchaser.

1.4 Sealing and Verification/Certification Provision

The calibration devices of each dispensing head are sealed.

Provision is made for a verification/certification mark to be applied.

TEST PROCEDURE

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

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors applied during a verification/certification test are:

- ±0.6 mL for deliveries of 15 mL; and
- ±1.0 mL for deliveries of 30 mL.

If water is used for testing this measure and the measuring chamber fails to drain completely, it will be necessary to add approximately one part alcohol to 3 parts water to reduce the surface tension of the test liquid. Methylated spirits can be used as the source of alcohol.

TECHNICAL SCHEDULE No 5/6S/3

VARIATION No 1

Pattern: Precision Measures Model Multimeasure Remote-storage Spirit Dispenser.

Submittor: Precision Measures Limited
Level 1, 6 Buckhurst Street
South Melbourne VIC 3205

1. Description of Variant 1

With alternative circuitry. The solenoid valve is controlled by electronic circuitry which receives signals from three probes inserted into the reservoir (Figure 3). The electronic circuitry, previously housed in a remote printed circuit board controller, is now located within the enlarged dispenser housing (Figure 4). The three probes perform the following functions:

Probe A controls the electronic circuitry. ('common' probe)

Probe B signals a low level condition and causes the solenoid valve to open and fill the reservoir. When the fluid level falls below this probe, the dispenser is rendered inoperative after completing the delivery in progress. The low level condition is immediately indicated by means of a light emitting diode (LED) going from 'green' to 'red'.

Probe C signals a full level condition and causes the solenoid valve to close when the reservoir is full.



National Standards Commission
Notification of Change
Certificate of Approval No 5/6S/3
Change No 1

The following changes are made to the approval documentation for the

Precision Measures Model Multimeasure Remote Storage Liquor Dispenser

submitted by Precision Measures Limited
now of
6 Buckhurst Street
South Melbourne VIC 3205.

- A. In Certificate of Approval No 5/6S/3 dated 14 January 1992;
- (i) The address of the submittor should be amended to read as above.
 - (ii) The Condition of Approval referring to the review of the approval should be amended to read:

"This approval becomes subject to review on or after
1 September 2001."
 - (iii) The Condition of Approval referring to the expiry of the approval should be deleted.
- B. In Certificate of Approval No 5/6S/3 and its Technical Schedule, both dated 14 January 1992, all references to "liquor" should be changed to "spirit".

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.

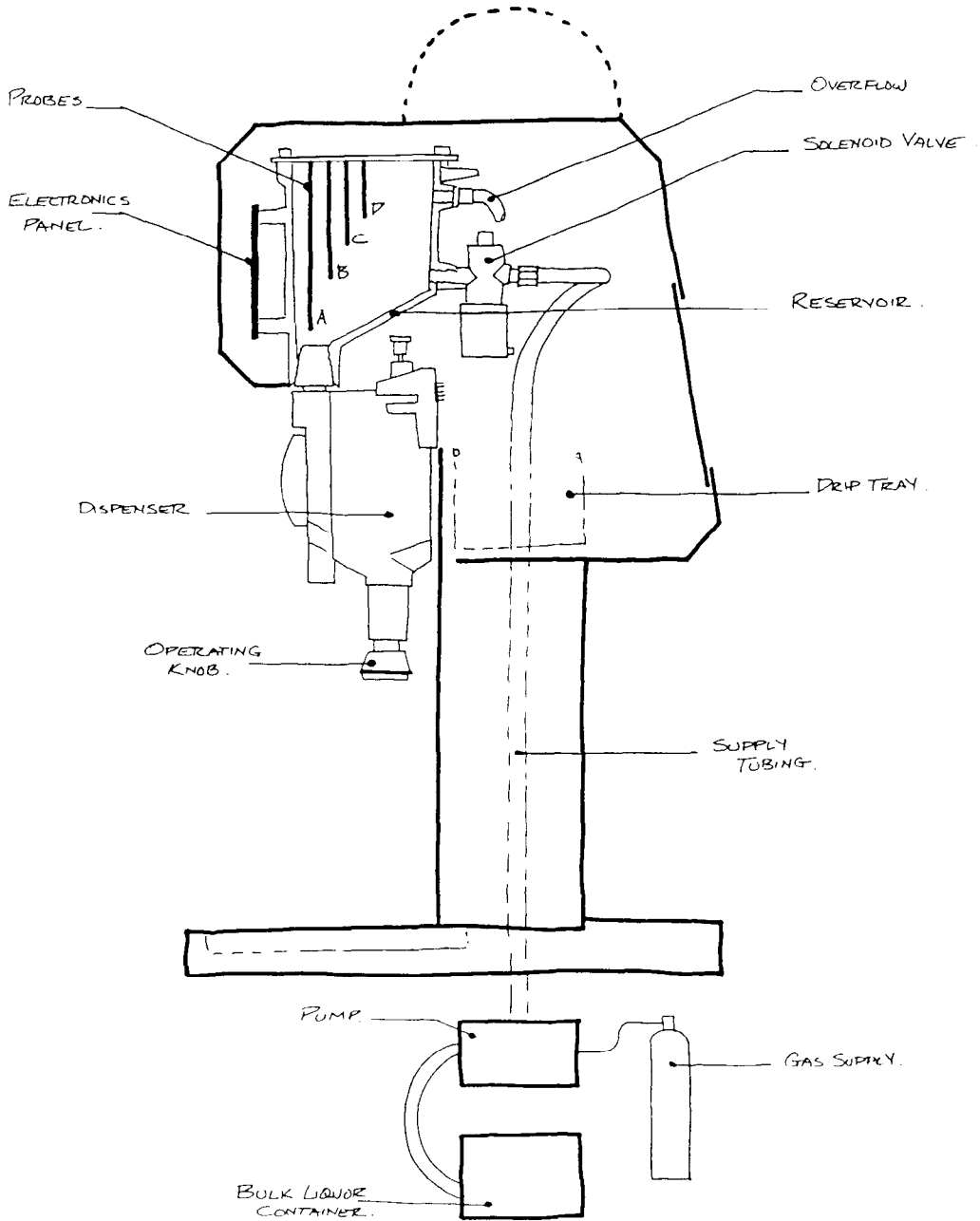
FIGURE 5/6S/3 - 1



Precision Measures Model Multimeasure Liquor Dispenser

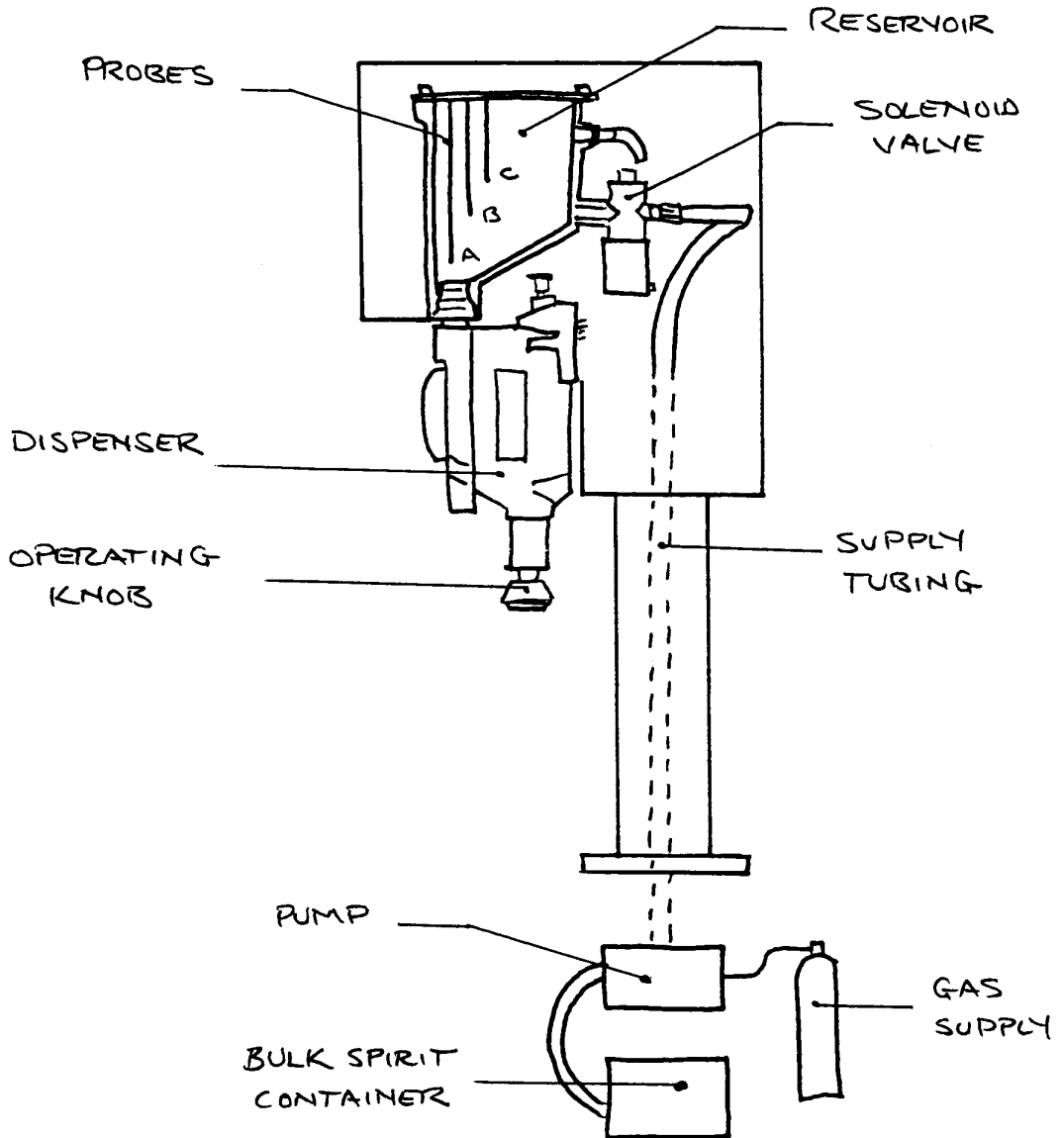
5/6S/3
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FIGURE 5/6S/3 - 2



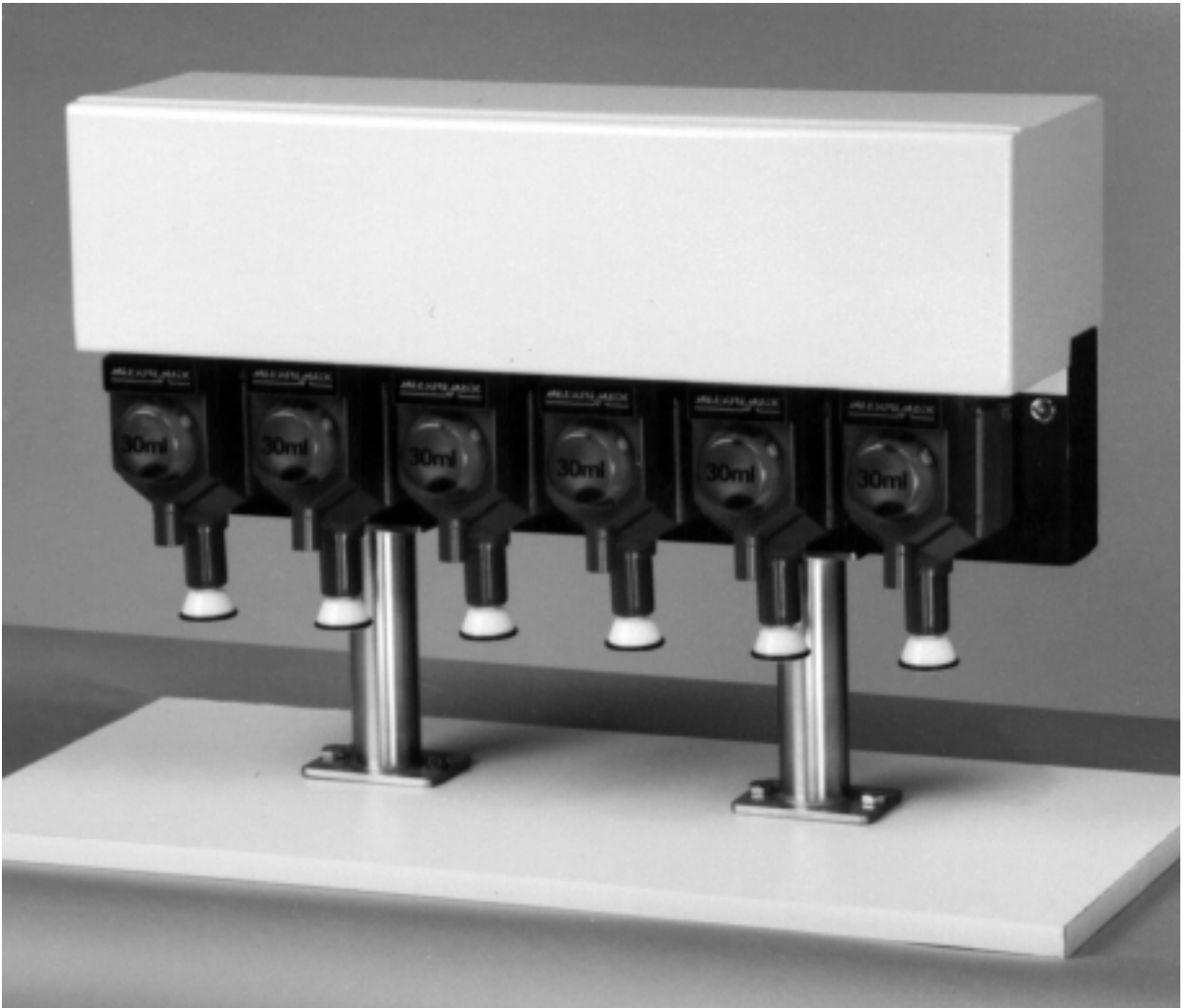
Typical Multimeasure System

FIGURE 5/6S/3 - 3



Schematic Diagram - Variant 1

FIGURE 5/6S/3 - 4



Multimeasure Remote-storage Spirit Dispenser - Variant 1