5/6S/3A
4 March 2011

Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Cancellation

Certificate of Approval

No 5/6S/3A

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 respect of the

Precision Measures Model Multimeasure MMC6 Spirit Dispenser

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

has been cancelled in respect of new instruments as from 1 April 2011.

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

Australian Government

National Standards Commission

12 Lyonpark Road, North Ryde NSW 2113 Australia

Certificate of Approval

No 5/6S/3A

Issued under Regulation 60
of the
National Measurement Regulations 1999

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

Precision Measures Model Multimeasure MMC6 Spirit Dispenser

submitted by Precision Measures Limited
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.

This Certificate is issued upon completion of a review of NSC approval No 5/6S/3.

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CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 September 2008, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 5/6S/3A 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 NSC P 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 1 August 2003

- A Precision Measures model Multimeasure MMC6 remote-storage spirit dispenser of 15 mL capacity.

Variants: approved 23 June 2004

1. The model Multimeasure MMC6 of 30 mL capacity.
2. The model Multimeasure MMW6 dispenser.
3. Certain other models of the Multimeasure MMW series.

Technical Schedule No 5/6S/3A describes the pattern and variants 1 to 3.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 5/6S/3A dated 24 June 2004
Technical Schedule No 5/6S/3A dated 24 June 2004 (incl. Test Procedure)
Figures 1 to 7 dated 24 June 2004

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

TECHNICAL SCHEDULE No 5/6S/3A

Pattern: Precision Measures Model Multimeasure MMC6 Spirit Dispenser

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

1. Description of Pattern

The pattern is a model Multimeasure MMC6 remote-storage spirit dispenser approved for dispensing certain spirits. The instrument is designed to dispense a quantity of 15 mL per delivery.

1.1 Field of Operation

The field of operation of the spirit dispenser is determined by the following characteristics:

- Approved spirits are brandy (including cognac and armagnac), gin, rum, vodka, and whisky (whiskey).
- Pour size 15 mL
- Ambient temperature range 5°C to 40°C
- Power pack input voltage range 204 V to 264 V AC

1.2 The System

The model Multimeasure MMC6 remote-storage spirit dispenser (Figure 1) incorporates 6 model MMC dispensing heads mounted in a tower unit. Each dispensing head (Figure 2) is operated electronically using a push-type switch, and includes a measuring chamber supplied by a reservoir and solenoid valve.

Instruments may be fitted with tapping points (Figure 3) which allow the transfer of information to a bar management system.

The internal valving arrangement in the dispensing head, when activated by a motorised cam valving mechanism, allows a measured quantity of spirit to be dispensed.

Spirit 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. 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 spirit 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 spirit to flow into the reservoir.

A Precision Measures 24 V AC power pack is used.

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The solenoid valve is controlled by the electronic circuitry, housed in a remote printed circuit board panel, which receives signals from four probes inserted into the reservoir (Figure 2). The four 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 Operation

A full quantity of spirit 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 push-type switch 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.

1.4 Descriptive Markings

The pattern is clearly marked, either on a permanently attached nameplate or, as part of the instrument, with the following information:

Manufacturer's name or mark	.....
Serial number	.....
NSC number	NSC No 5/6S/3A
Model designation	.....

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

1.5 Sealing Provision

Provision is made for sealing of each dispensing head by placing a destructive label across the joint of the body and the measuring chamber.

1.6 Verification/Certification Provision

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

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2. Description of Variants

2.1 Variant 1

The model Multimeasure MMC6 with a larger measuring chamber designed to dispense a quantity of 30 mL per delivery. Instruments are marked accordingly.

2.2 Variant 2

Model MMW6 with 6 model MMW dispensing heads having alternative circuitry and designed for dispensing a quantity of either 15 mL or 30 mL per delivery.

Instruments are either mounted on the bar top or without legs on a wall (Figures 4 and 5).

The solenoid valve is controlled by electronic circuitry which receives signals from three probes inserted into the reservoir (Figure 6). The electronic circuitry, previously housed in a remote printed circuit board panel in the pattern, is now an integrated electronic panel located within the enlarged dispenser housing. 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.

2.3 Variant 3

Certain other models of the MMW** series having from 1 to 12 model MMW dispensing heads arranged in a single or double row tower (Figure 7) and where ** in the model number represents the number of heads dispensing spirits – some of the dispensing heads may be used to deliver non-alcoholic beverages (e.g. soft drinks) and are not approved for trade use.

Instruments are designed for dispensing a quantity of either 15 mL or 30 mL per delivery.

TEST PROCEDURE

Instruments should be tested in conjunction with any relevant tests specified in the NSC document *Test Procedure No 3, Alcoholic Beverage Measures*.

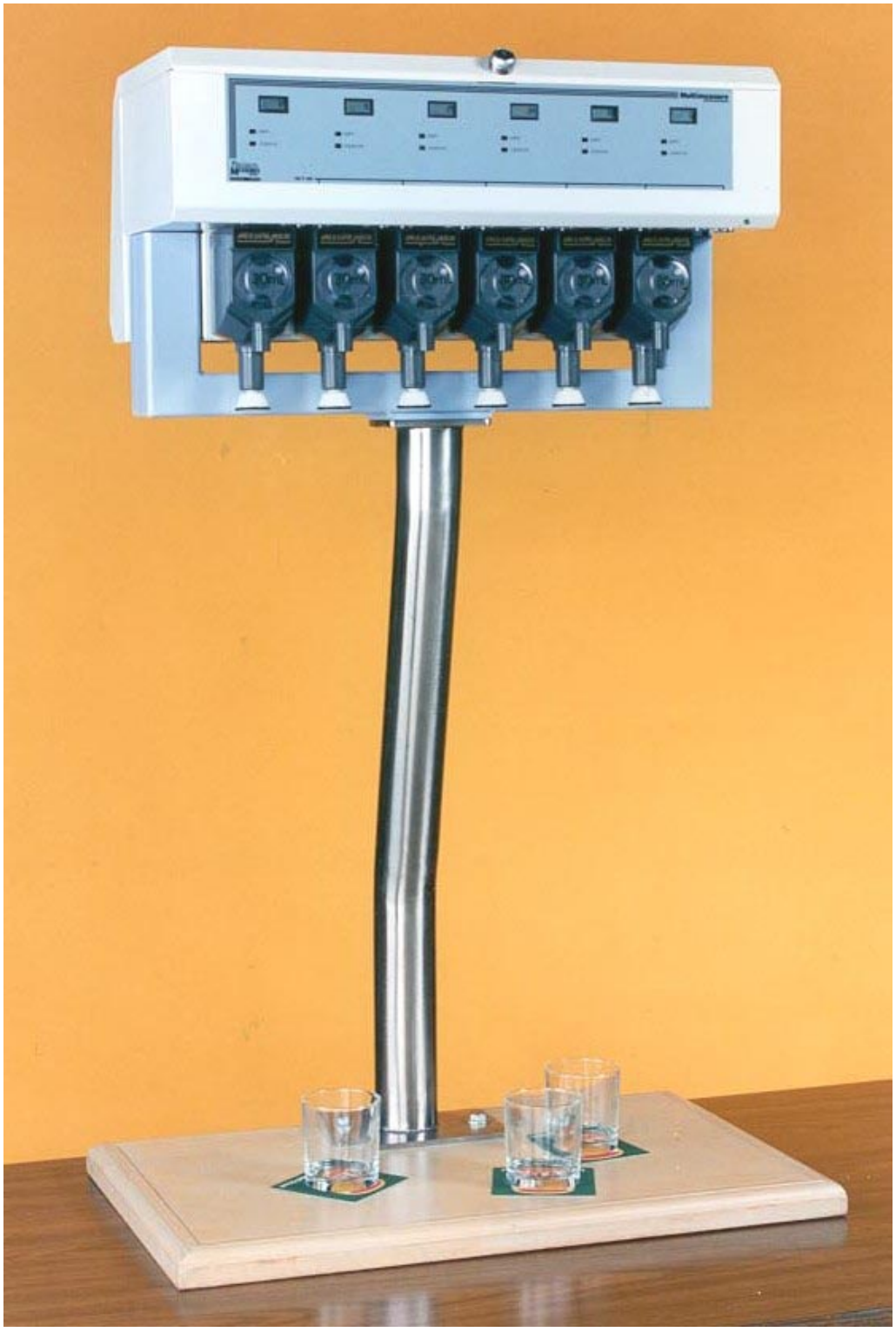
Maximum Permissible Errors at Verification/Certification

The maximum permissible errors applicable at verification/certification are:

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

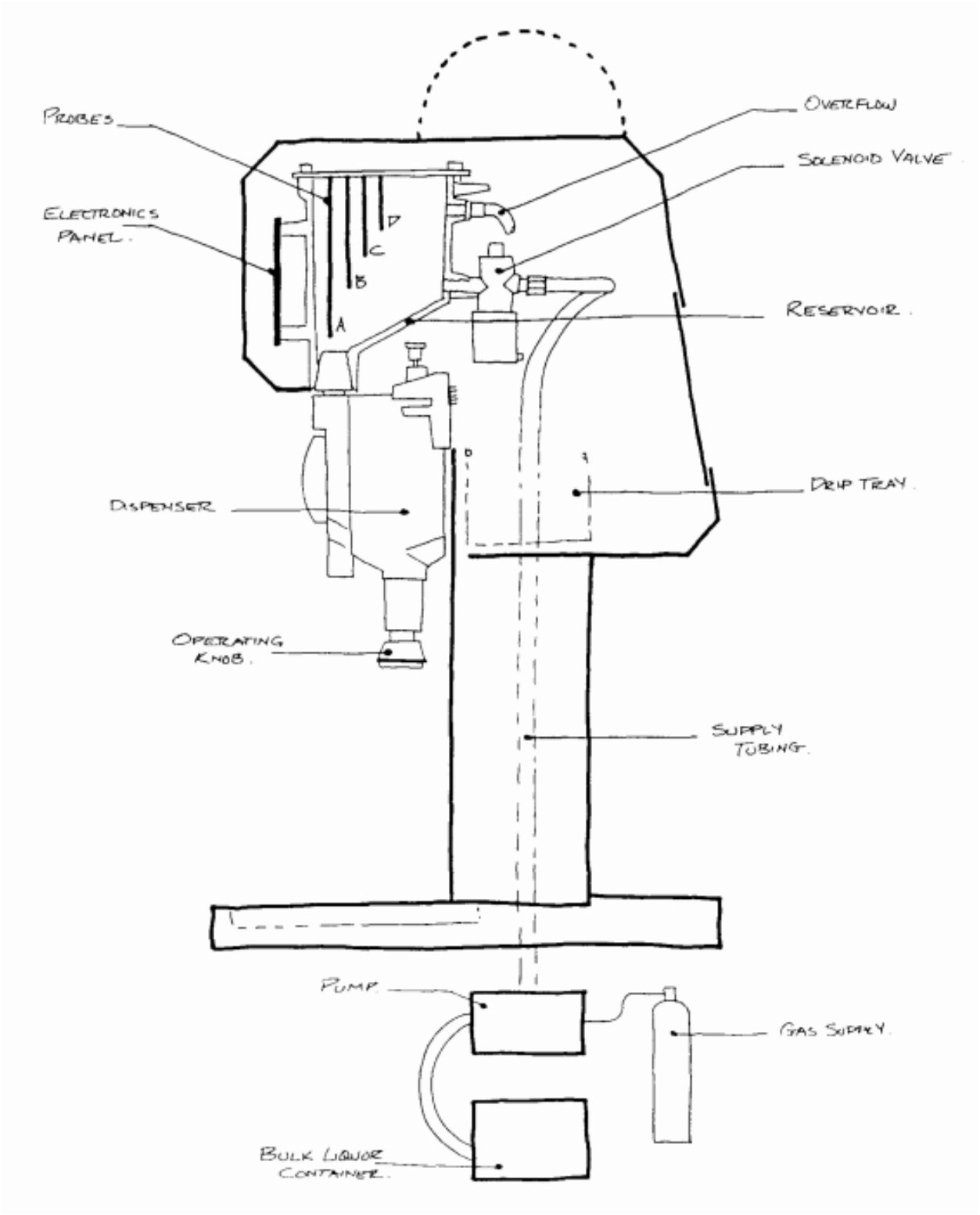
If water is used for testing this measure and the measuring chamber fails to drain completely, it will be necessary to add approximately one part alcohol to 3 parts water to reduce the surface tension of the test liquid. Methylated spirits can be used as the source of alcohol.

FIGURE 5/6S/3A – 1



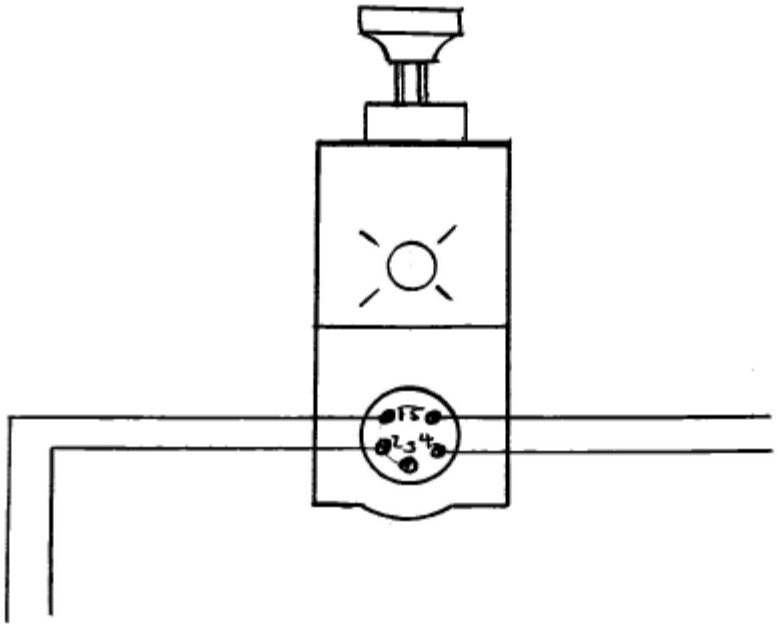
Precision Measures Model Multimeasure MMC6 Spirit Dispenser

FIGURE 5/6S/3A – 2



Precision Measures Model MMC Dispensing Head

FIGURE 5/6S/3A – 3

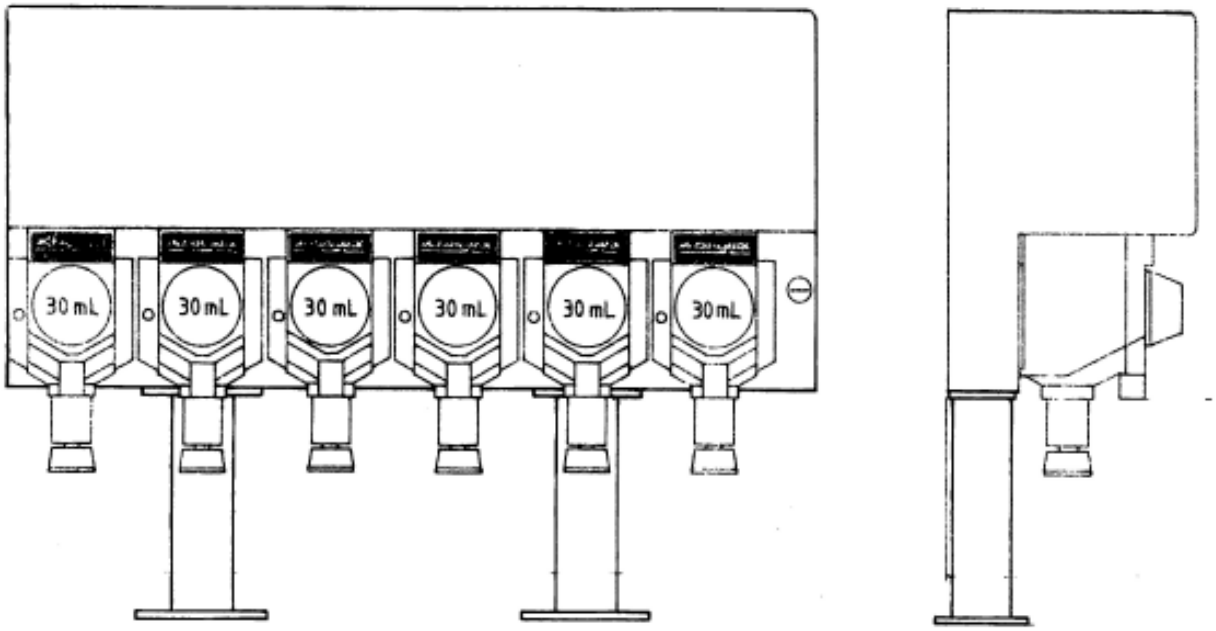


Tapping Points

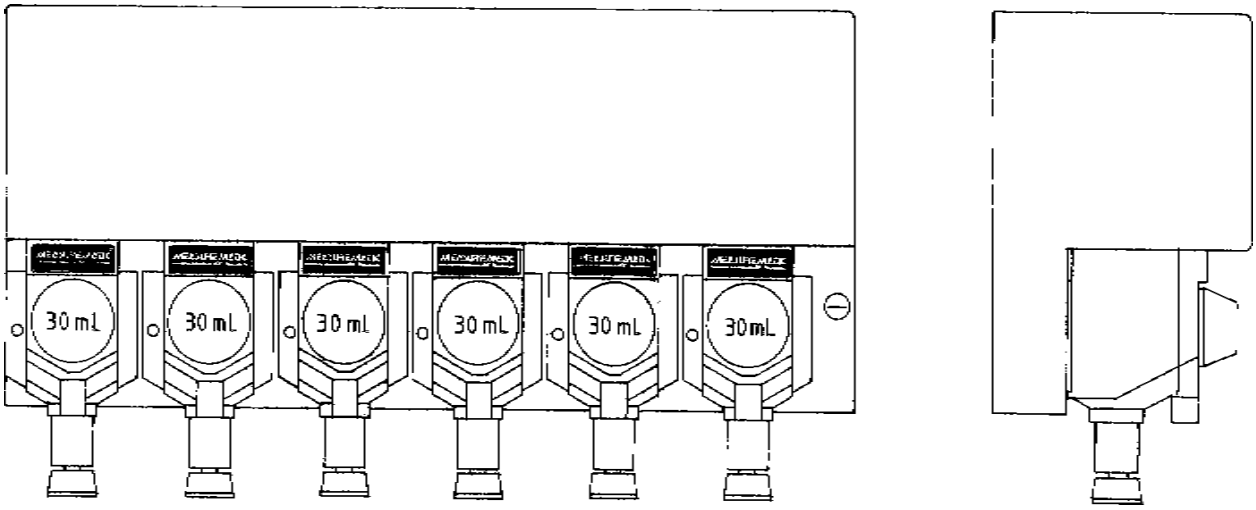
REAR VIEW: DISPENSER MOUNTING LUG

Showing Output Socket

FIGURE 5/6S/3A – 4



Model MMW6 Bar Mount Unit



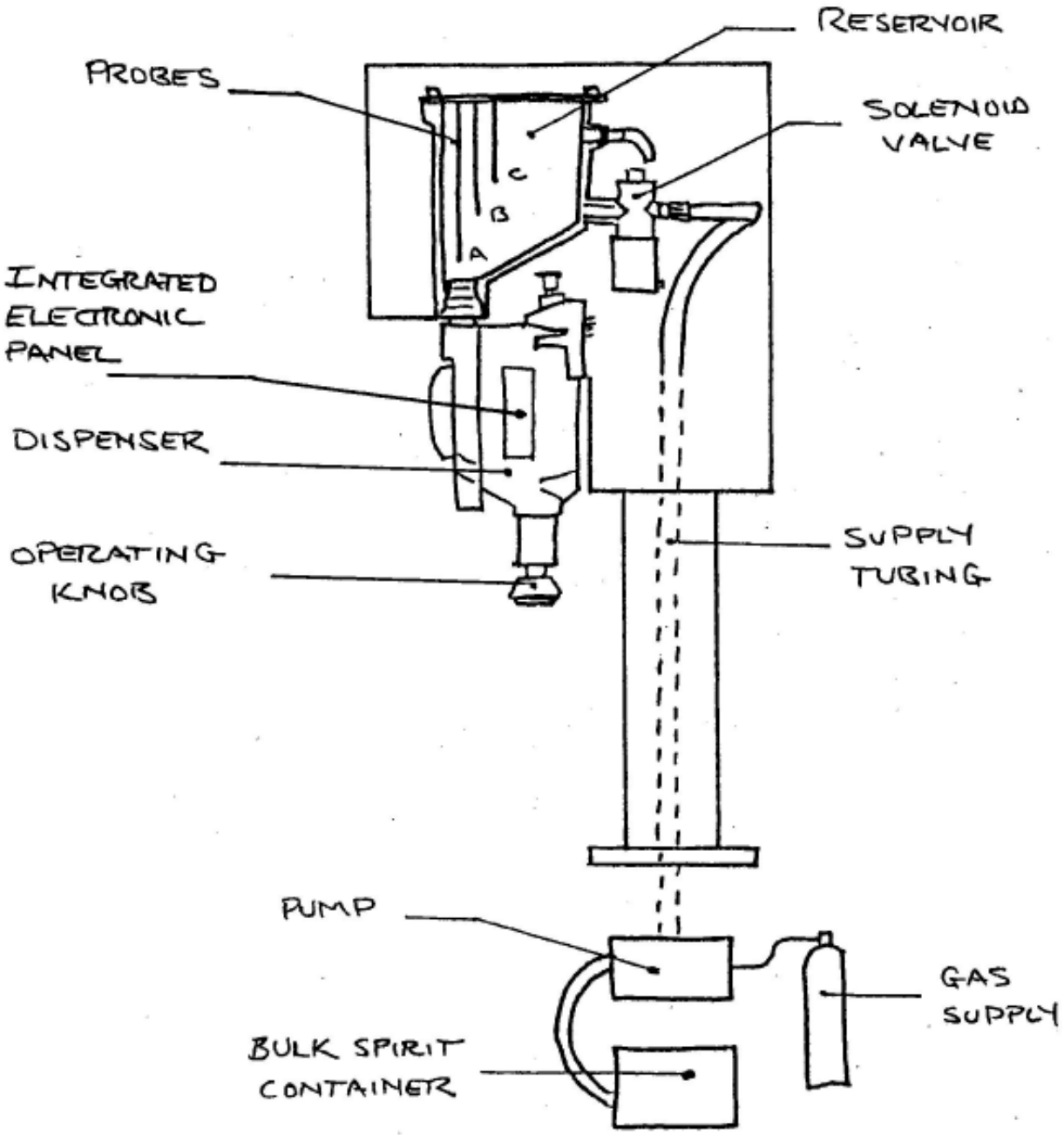
Model MMW6 Wall Mount Unit

Precision Measures Model MMW6 – Alternative Mountings

FIGURE 5/6S/3A – 5

Precision Measures Model MMW6 Bar Mount Unit

FIGURE 5/6S/3A – 6



Precision Measures Model MMW Dispensing Head

FIGURE 5/6S/3A – 7

Precision Measures Model MMW 06 Unit