



**Pursuant to section 12 of
the Weights and Measures Act 1985**

Certificate No 2164 Revision 2

Issued by:

The Office for Product Safety and Standards

In accordance with the provisions of section 12 of the Weights and Measures Act 1985, the Secretary of State for Business, Energy & Industrial Strategy has issued this UK national type-approval certificate to:

**Beaumont TM Ltd
1-4 Lyall Court
Maulden Road
Flitwick
Bedfordshire
MK45 1UQ
United Kingdom**

And hereby certifies as suitable for use for trade the following pattern of a spirit measuring instrument, in respect of measuring intoxicating liquor in fixed quantities.

The necessary data (principal characteristics, alterations, securing, functioning etc) for identification purposes and conditions (when applicable) are set out in the descriptive annex to this certificate.

Note: This certificate relates to the suitability of the equipment for use for trade only in respect of its metrological characteristics. It does not constitute or imply any guarantee as to the safety of the equipment in use for trade or otherwise.

This revision replaces previous versions of the certificate.

Issue Date: 06 January 2023

Valid Until: 05 September 2031

Grégory Glas
Lead Technical Manager
For and on behalf of the Secretary of State

CONTENTS

CERTIFICATION NO 2164

- 1 INTRODUCTION**
- 2 CONSTRUCTION**
- 3 OPERATION**
- 4 AUTHORISED ALTERNATIVES**
- 5 RECOMMENDED TESTS**
- 6 ILLUSTRATIONS**
- 7 CERTIFICATE HISTORY**

CERTIFICATION NO 2164

Descriptive Annex

1 INTRODUCTION

This pattern of a liquid measuring instrument is for use in measuring intoxicating liquor in fixed quantities of 25 ml, 35 ml and 50 ml. The instrument is normally supplied from an inverted unpressurised bottle connected to its inlet and dispenses when the operating arm at the delivery port is raised to its maximum. A transparent window ultrasonically welded to the front face of the chamber displays the complete charging and discharging of the instrument.

2 CONSTRUCTION

2.1 Mechanical (Figure 1)

2.1.1 The instrument is mainly constructed from plastic with a transparent window (10) of crystal polystyrene. A plastic bezel (23) surrounds the window and is secured by integral clips. The springs (3,14,17) are of stainless steel and are used to return the central spindle and air valve to their closed positions and to apply sealing pressure to the capacitor valve assembly. The delivery tube is chrome plated brass. Seals or washers may be Nitrile or Silicone. The fixing screws (22) are of stainless steel.

The central spindle is in four parts. The lower part is the delivery tube (2) which extends through the body (1) and has an outlet seal (9), seal retainer (8), and capacitor (12). The capacitor is fitted with a stabilised disc valve assembly (13, 14 and 15) which closes the inlet port during the dispensing operation.

The inlet tube is fitted with a separator (21) which assists the flow from the bottle when the measuring chamber recharges.

The capacitor has a flat top surface beneath the valve assembly which actuates the air valve (16, 17 and 18) to admit air into the bowl as the instrument discharges.

The upper end of the delivery tube is recessed, above and below the cross bore, to accept O-rings (6 and 7). The lower end of the delivery tube is enlarged to retain a snap on operating arm (1). The delivery tube and operating arm form a mating cone drip retainer.

The delivery tube is returned to the closed position by a spring (3) acting between the spindle collar (4) and the ferrule (5), the mechanism being enclosed by the ferrule.

The top and bottom surfaces of the measuring chamber are angled to allow complete charge and discharge of liquid when the instrument is not mounted perfectly vertical.

The headplate (19) and bracket (20) are fixed together by two screws to form the head assembly.

The head assembly, body and window are ultrasonically welded together to form a tamperproof assembly.

2.1.2 The body (24) and capacitor (25) as shown in Figure 2 are modified to provide an increased capacity of 50 ml. The 50 ml instrument is shown in Figure 3.

2.2 Legends

2.2.1 The capacity legend, is durably marked on the sight glass. The characters are nominally 6 mm high and the overall height of the fraction is 11 mm.

The manufacturer's legend, Beaumont House Ltd, and telephone number are on an adhesive label affixed to the side of the bracket as shown in Figure 2 (20).

The Certificate number and manufacturer's name are durably moulded on the body.

Additional advertising may be fitted to the bezel and should not obscure the window in any way.

2.3 Sealing and stamping

The measuring chamber is ultrasonically welded during manufacture to form a tamperproof non-reparable assembly. It is therefore not necessary to seal the instrument.

The stamp is applied by a hot forming process directly to the body assembly as shown in Figure 1 (11).

3 OPERATION

When the instrument is fully charged with liquid, the operating arm is pushed upwards. The seal of the capacitor disc valve makes positive contact with the sealing in the head this preventing the ingress of further liquid. The upper O-ring of the dispense tube remains in the bore of the bowl at this stage. Further movement causes the flat top surface of the capacitor to open the air valve. Continued movement uncovers the cross bores allowing the liquid to discharge. Maximum movement is achieved when the top of the capacitor makes contact with the underside of the disc valve. The cross bores do not completely clear the bowl base to allow complete discharge. The lower O-ring of the dispense tube prevents leaking from around the spindle shaft. On completion of a dispense the operating arm is relaxed, the downward movement operates the sequence in the reverse order. Liquid refills the instrument venting air into the bottle.

4 AUTHORISED ALTERNATIVES

4.1 For the fixed capacities of 25ml or 35ml, the increased volume is obtained by fitting a window with a protruding front face. The quantity legend is amended accordingly.

4.2 The manufacturer's legend, Beaumont House Ltd, and telephone number may be on an alternative bezel affixed to the window as shown in Figure 1 (10).

4.3 An alternative shaped bezel, incorporating additional advertising, may be fitted but should not obscure the window in any way.

4.4 Having fixed capacities of 35 ml. The 35 ml instrument (Figure 4) utilises the capacitor and window as described in Section 2.1.1 and the instrument body as shown in Figure 2 (24). The capacity legend is amended accordingly.

4.5 Having the option of a plastic delivery tube as shown in Figure 1 (2).

4.7 Having the capacitor formed from an inner stem and an outer sleeve as shown in Figure 1 (12).

4.8 Having an alternative lever mechanism as shown in Figure 5. One measure is dispensed when the lever is pushed fully back.

4.9 Having an extra, separate, transparent cover in addition to the sight glass for capacities of 25 ml and 35 ml. The cover clips on to the front of the measure and is purely cosmetic. It is non-removeable and is vented top and bottom to prevent trapping of any liquid within it. The measure with the extra cover in place is shown in Figure 6.

4.10 Having a semi-circular shaped sight glass plus an extra, separate, transparent cover in addition to the sight glass for capacities of 50 ml. The cover clips to the front of the measure and is purely cosmetic. It is non-removeable and is vented top and bottom to prevent trapping of any liquid within it. The measure with the extra cover in place is shown in Figure 7.

4.11 Having an alternative supplier's legend, M & C Ltd.

4.12 Having an alternative manufacturer's legend, Beaumont TM.

4.13 Having an alternative construction and lever mechanism as shown in Figures 8 and 9. One measure is dispensed when the lever is pushed up.

4.14 Having an alternative bezel fitted to the measure as shown in Figure 10.

5 RECOMMENDED TESTS

Due to increased surface tension it is possible on occasion that the instrument will not operate correctly when using water as the test liquid. This problem does not occur when using any of the prescribed spirits. Providing the instrument fills correctly the dispensed measure should be within statutory limits irrespective of the liquid used.

6 ILLUSTRATIONS

- Figure 1 Measuring Unit general arrangement (Certificate 2164)
- Figure 2 Measuring Unit general arrangement (2164/1)
- Figure 3 Measuring unit 50 ml (2164/1)
- Figure 4 Measuring unit 35 ml (2164/1)
- Figure 5 Chamelion spirit dispenser with alternative lever mechanism (2164, 2164/1)
- Figure 6 Chamelion spirit dispenser with extra cover (2164, 2164/1)
- Figure 7 50 ml Chamelion spirit dispenser with extra cover (2164, 2164/1)
- Figure 8 Alternative construction general assembly (2164, 2164/1)
- Figure 9 Metrix spirit dispenser with alternative lever mechanism (2164, 2164/1)
- Figure 10 Alternative bezel (2164, 2164/1)

7

CERTIFICATE HISTORY

CERTIFICATE NUMBER	DATE	DESCRIPTION
2164	6 September 1991	Certificate first issued.
2164/1	29 January 1992	Variant certificate first issued.
2164 (amendment 1)	5 February 1992	Authorised alternative 4.5.
2164/1 (amendment 1)	9 March 1992	Authorised alternative 4.5.
2164 (amendment 2)	23 July 1993	Authorised alternative 4.7.
2164 (amendment 3) 2164/1 (amendment 2)	14 December 1998	Authorised alternative 4.8.
2164 (amendment 4) 2164/1 (amendment 3)	14 December 1998	Authorised alternative 4.9.
2164 (amendment 5) 2164/1 (amendment 4)	8 June 1999	Authorised alternative 4.10.
2164 (amendment 6)	12 June 2000	Authorised alternative 4.11.
2164 (amendment 7)	12 June 2000	Authorised alternative 4.12.
2164 & 2164/1 Renewal 1	24 July 2001	Renewal.
2164 (amendment 8) 2164/1 (amendment 5)	23 June 2003	Authorised alternative 4.13.
2164/1 (amendment 6)	4 May 2007	Authorised alternative 4.14.
2164 & 2164/1 Revision 1	03 October 2011	Renewal for 10 years.
2164 & 2164/1 Revision 2	06 January 2023	<p>Renewal for a further 10 years (from previous expiry date, the certificate remained in force until this revision was issued).</p> <p>References to NMO replaced with Office for Product Safety and Standards.</p> <p>Re-formatting of text to combine 2164 & 2164/1, including all previous amendments [2164 Am 1 to 9, 2164/1 Am 1 to 6].</p> <p>2164/1 text is in section 2.1.2, authorised alternative 4.4 and section 5 of this certificate.</p> <p>Note: The unit “gill” is no longer permitted and has been removed from the certificate.</p>

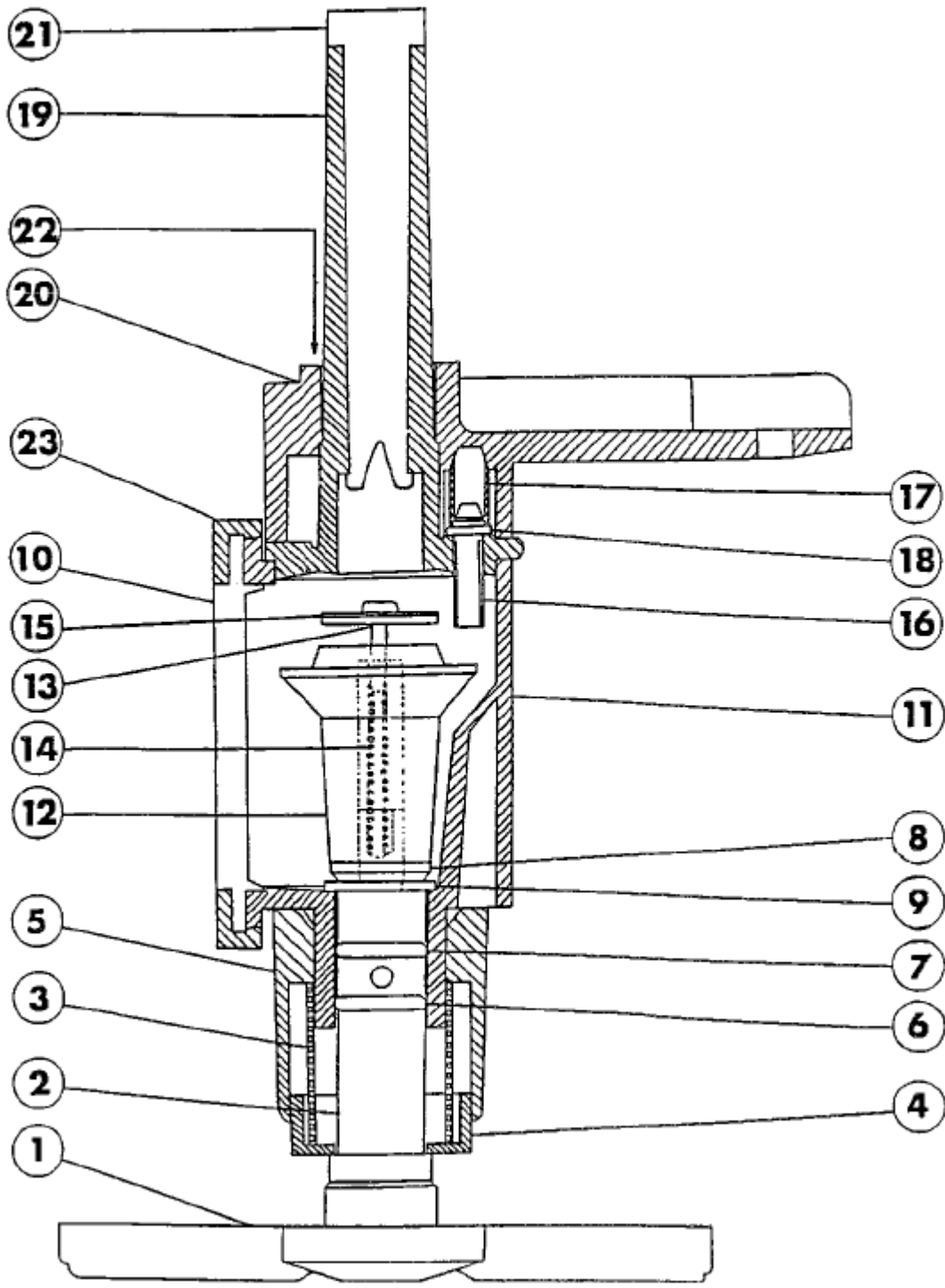


Figure 1 Measuring Unit general arrangement (Certificate 2164)

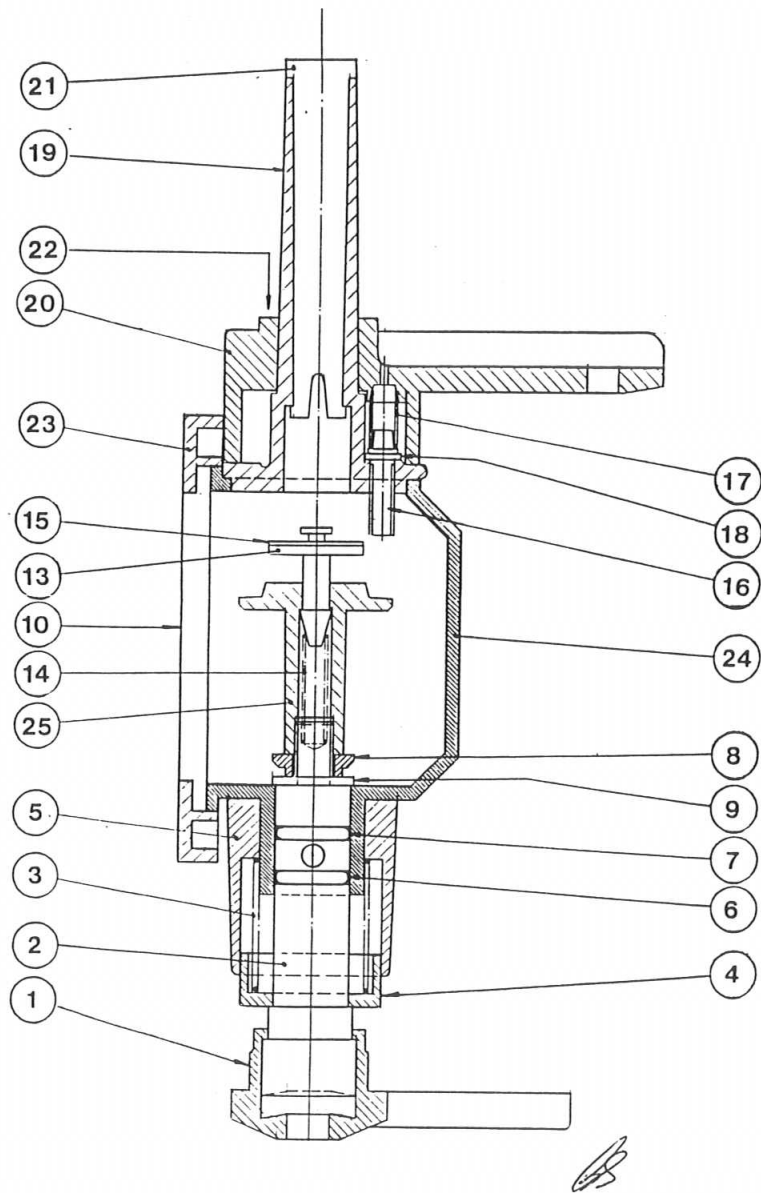


Figure 2 Measuring Unit general arrangement (2164/1)

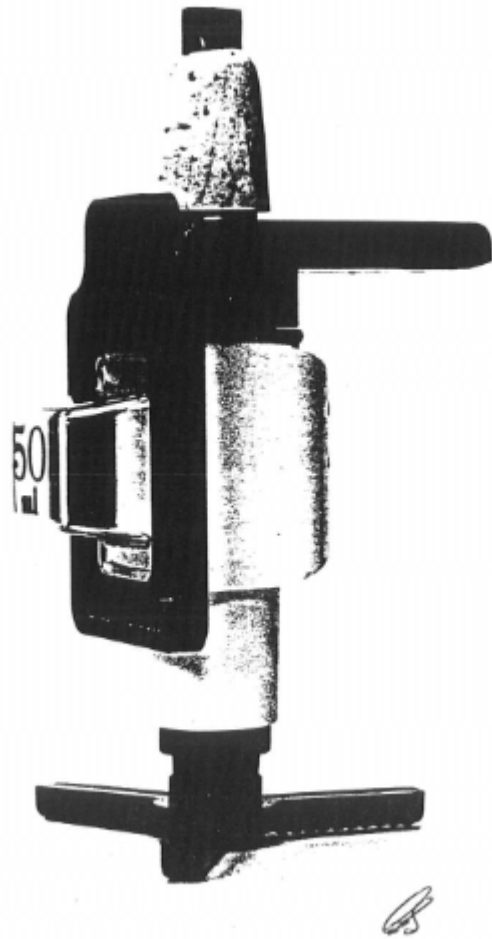


Figure 3 Measuring unit 50 ml (2164/1)

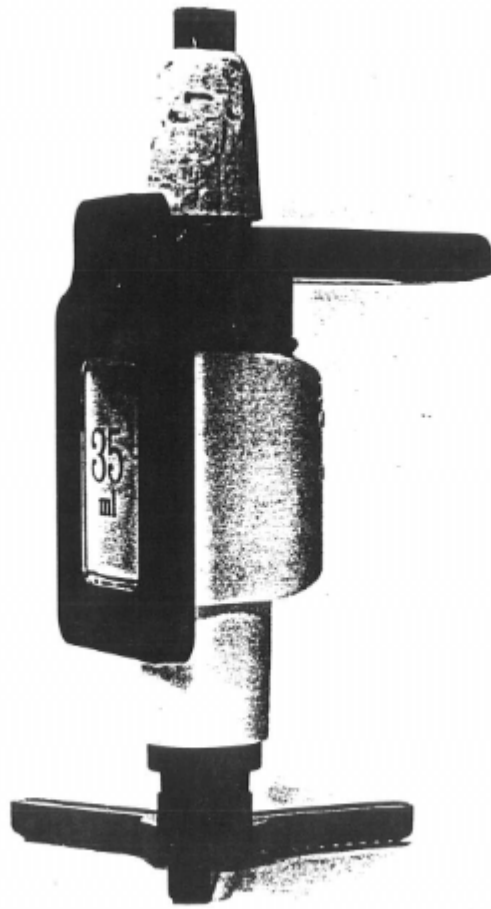


Figure 4 **Measuring unit 35 ml (2164/1)**

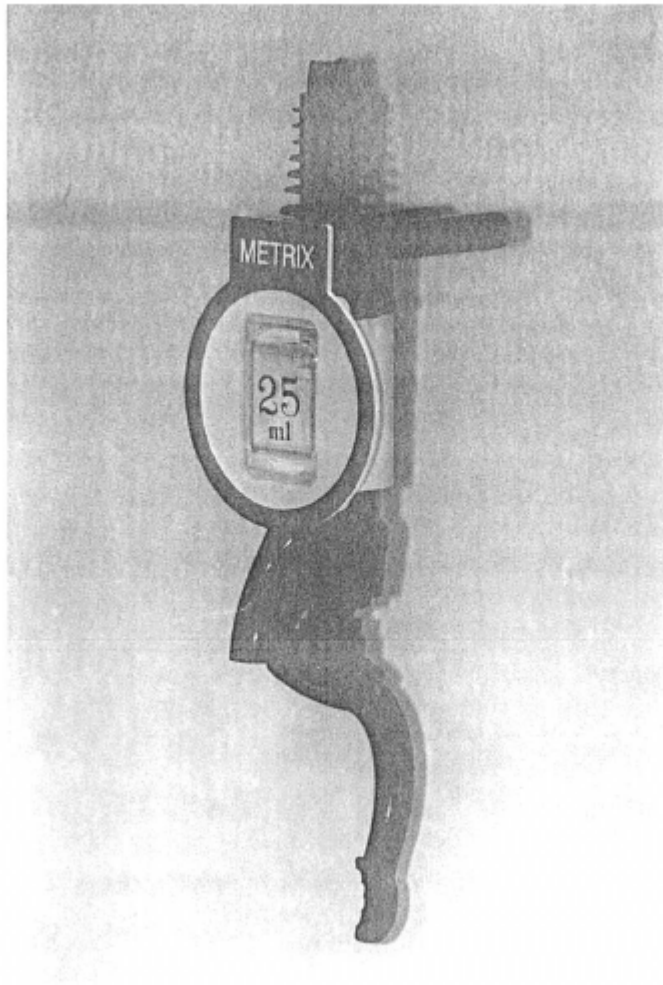


Figure 5 Chamelion spirit dispenser with an alternative lever mechanism (2164, 2164/1)

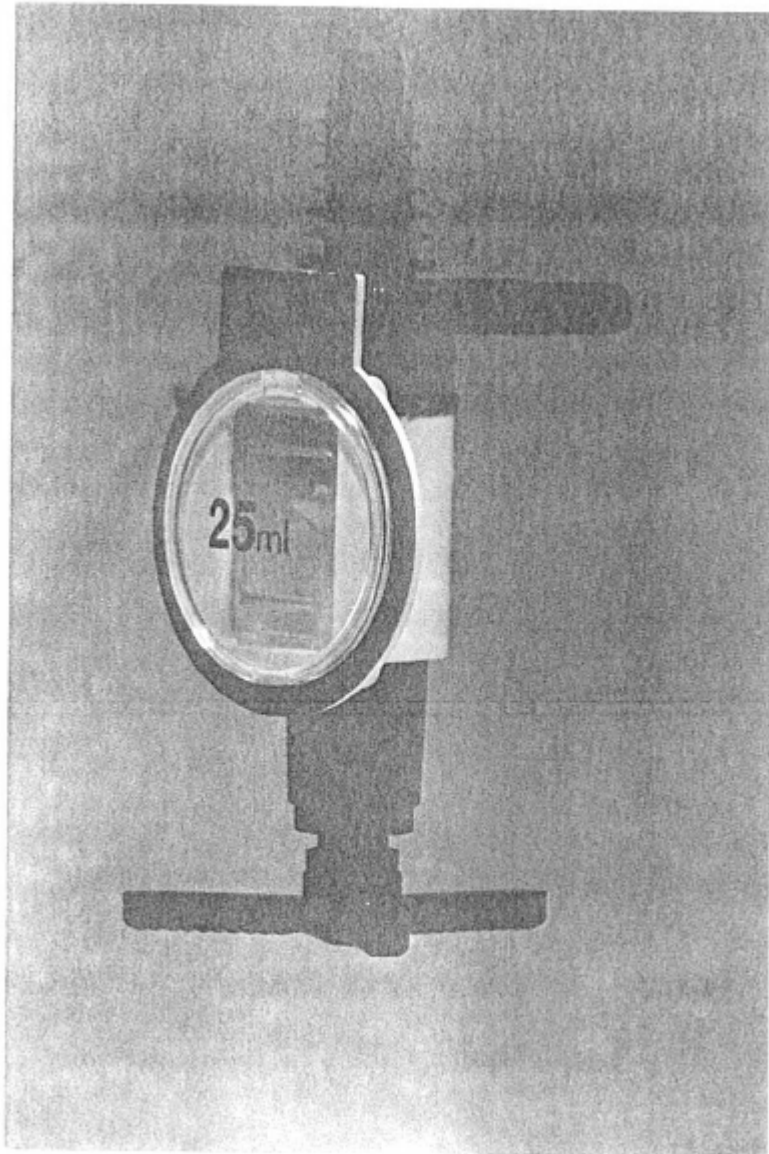
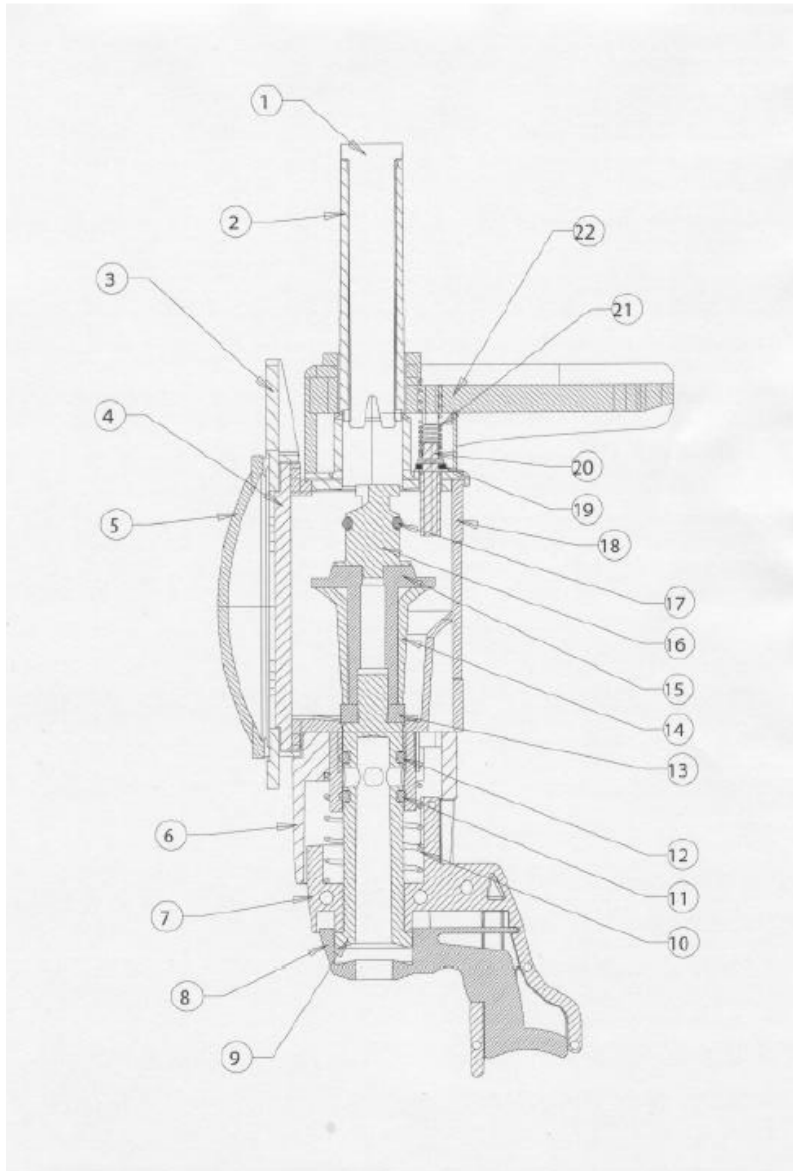


Figure 6 Chamelion spirit dispenser with extra cover (2164, 2164/1)



Figure 7 50 ml Chamelion spirit dispenser with extra cover (2164, 2164/1)



METRIX SL SPIRIT MEASURE

- | | | | |
|----|----------------|----|------------------|
| 1 | Separator | 12 | 'O' ring |
| 2 | Head | 13 | Travel stop |
| 3 | Bezel | 14 | Capacitor sleeve |
| 4 | Window | 15 | Capacitor body |
| 5 | Domed lens | 16 | Inlet guide |
| 6 | Femule | 17 | 'O' ring |
| 7 | Operating arm | 18 | Body |
| 8 | Non-drip | 19 | Air valve washer |
| 9 | Spindle | 20 | Air valve |
| 10 | Spindle spring | 21 | Air valve spring |
| 11 | 'O' ring | 22 | Headplate |

Figure 8 Alternative construction general assembly (2164, 2164/1)



Figure 9 Metrix spirit dispenser with alternative lever mechanism (2164, 2164/1)



Figure 10 Alternative bezel (2164, 2164/1)