1,6 5,2 33,44

LABORATORY EQUIPMENT PRESSURE GAUGE for BOTTLES

OPERATINGAND MAINTENANCEINSTRUCTIONS
KEEP THIS HANDBOOKNEXTTO THEABOVETOOLFORFURTHERREFERENCE

Pict.1a

10710a

10710b

Pict.1b

Pict.1c

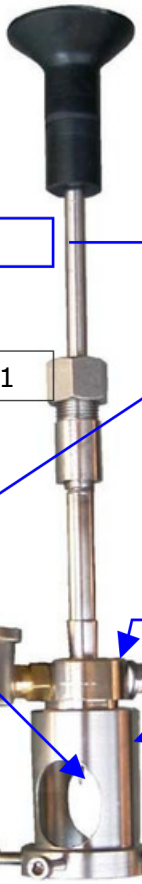
CORK to be TESTED with APHROMETER
art.10710–a-b

10718-01

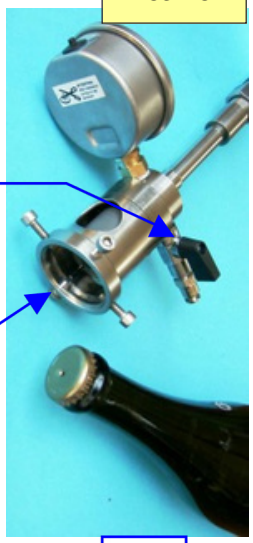
Pict.2a

CORKS to be TESTED with the APHROMETER
art.10711 -s -p -c

Pict.2b



Pict.2c



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art.10711

Pict.2d

2

3

4

5

art.10717-c CROWN KIT L43

art.10717-p PET KIT L40

art10717-s CHAMPAGNE kitL33

9

6

V

8

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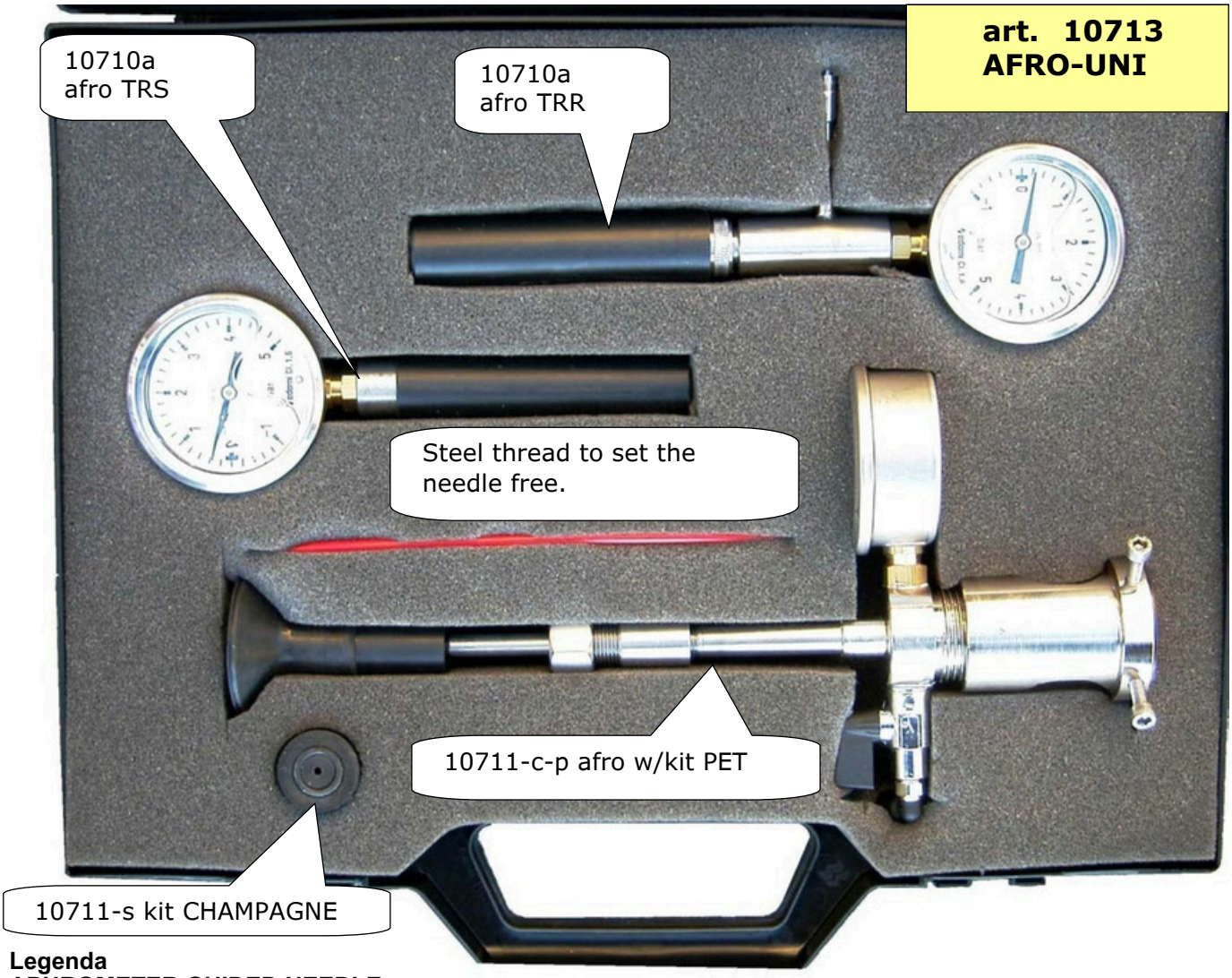
Pict.3a



Legenda
APHROMETER GUIDED NEEDLE

N	art.	description
1		Knob
2		Collector
3		Pierced tap
3a		Sealing Or
3b		Or spacers
4		Valve
5		Manovacuum gauge
6		Collector group
7		Centralizer group
8		Centralizer screws
9		Tightening ring

Pict.3b

INDEX

Chap.	description	Pag.	Chap.	description	Pag.
	IDENTIFYING DETAILS	2	3	ADMITTED ANDNONADMITTED USE	4
	PREARRANGED SYMBOLS	3	4	HANDLING - UNPACKAGING	4
TAB.1	GUARANTEE	3	5	SETTING UP PROCEDURES	4-5
1	TECHNIC TABLE accessories- surcharges	3	6	USE AND OPERATION	5-6
2	TOOL DESCRIPTION	2	7	CLEANING AND MAINTENANCE	6
	GENERAL SAFETY WARNINGS	4	8	TROUBLESHOOTING	6

IDENTIFYING DETAILS

ART.+ART. +ART.	MODEL	REG.N°						YEAR			
1071	AFRO										

PREARRANG ED SYMBOLS


GENERIC DANGER: **injures to people**


PERIDANGERELECTRIC VOLTAGE : **hazard injures to persons**


DANGER arising from moving TOOLS **injures to people**

NOTA **DANGER serious damages to the machine**

THISHANDBOOKCANBE UPDATEDORCHANGEDWITHOUTBEINGOBLIGEDTO UPDATE THE PREVIOUSONES
THE INOBSERVANCY OF THE RECOMMENDATIONS CONTAINED IN THIS HANDBOOK RELEASES THE MANUFACTURER FROM ANY RESPONSIBILITY

GUARANTEE

SPAGNI guarantees its machines and tools for a period of 12 months from shipment date of the goods. The guarantee does not cover the components made elsewhere, for which the guarantee of the original manufacturer is valid. The guarantee shall only be valid if the machine has been correctly used, following the instructions given in this manual, including the periodical maintenance work laid down.
Any parts that are faulty or have broken during the period of guarantee shall be replaced free of charge by SPAGNI at its premises at SCANDIANO Italy, or sent directly to the client. The client shall be responsible for the expenses of transport and delivery of the spare parts in either case.
In the case of the replacement of faulty parts, SPAGNI can take these back after they are replaced.
Whenever the installation and/or replacement of the faulty parts requires labour at the premises of the purchaser, the relevant expenses for this work shall be paid for by SPAGNI, while the expenses of travel and transfer shall be payable by the purchaser. Each individual case of any special work done by the technicians of SPAGNI shall be agreed upon separately. The guarantee does not cover any consumable materials and materials used for periodic maintenance and any parts damaged by incorrect use of the machine. Repairs and/or replacements carried out during the period of the guarantee do not extend its length of validity. Any recognition of the guarantee excludes any request for compensation for damages due to lost production.

TABLE 1 **TECHNICAL TABLE**

Art.	MODEL	RANGE std.	SUGGESTED USE	Overall sizes mm Leng.	Width	Heigh.	Weight gr.
10710-a	AFRO TR	-1+5	CORKS standard	70	30	170	130
10710-b	AFRO TRR	-1+5	CORKS standard	70	30	220	160
10711-c	AFRO TCR	-1+5	CROWNS	170	50	230	950
10711-p	AFRO TSR	-1+9	CHAMPAGNE CORK w/cage	170	50	230	950
10711-s	AFRO TPR	-1+5	CORKS fitting PET BOTTLE	170	50	230	950
10713	AFRO-UNI	0-6/-1+9	CORKS std-crown-pet	340	400	100	2500
Upgrades - Accessories and spare parts							
10716-a PIERCED NEEDLE 070				Diam. 2,5		70	
10716-b PIERCED NEEDLE 110				Diam. 2,5		110	
10717-c CROWN KIT L43				Diam.27		43	
10717-p PET KIT L40				Diam.27		40	
10717-s CHAMPAGNE kit L33				Diam.27		33	
10718-01 NEEDLE PROTECTION				Diam.25		90	
10718-02 SAFETY TAP				Diam.40		18	
35670	PRESSURE GAUGE		Scale 0 +6bar	Diam.65			
35675	MANOVACUUMGAUGE		Scale −1 +5bar	Diam.65			
35676	MANOVACUUMGAUGE		Scale −1 +5bar	Diam.65			

CHAPTER 1: DESCRIPTION

DearCustomer,may we congratulate you forhaving chosen our product APHROMETER tool.

1.1 GENERALINFORMATION The Aphrometer AFRO models are simple and versatile tools enabling to:
-Check the progress in pressure changing inside the champagne bottles under classic method system.
-Check the 'nitrogen' pressure (put through the nitrogen system)
-Check the 'empty' value into the bottles closet under vacuum system.
-Evaluate the progress of natural and synthetic corks or the screw caps under pressure.
- Evaluate the progress of the PET containers under pressure and outside temperature variations.
The purchased tool, according to the chosen model, allows a quick and precise measurement of the pressure or vacuum value inside a filled and closed bottle.
The measurement is made possible through a stainless steel needle suitably shaped and pierced.
The needle, manually introduced through the closure, allows to transfer the values (pressure or vacuum) to the hand of the stainless steel glycerol bath pressure gauge.

The pressure gauge having diameter 60mm located in optimal position guarantees a simple and easy to read values.

CHAPTER 2 GENERAL SAFETY WARNINGS

The manufacturer cannot be held responsible for injures or damages caused by improper use of the tool (in this case the guarantee will decade) or by failure to strictly adhere, partially or in total, to the safety regulations and procedures in general and as laid down in this booklet.

2.1 Safety warnings to be carried out by the user

As above mentioned, the operator has to manage a very long, sharp and hard needle which in case of misuse could cause **BAD INJURES TO PEOPLE.**

Attention! When removing the safety protection (pos10718-01-02) in order to use the tool, the user is taking his own and full responsibility against any damages which could occur to himself and especially to somebody else.

DANGEROUS carry out quick and sudden movements while keeping the tool in the hands free from protection, could lead to bad injures to the people in the surrounding space which could be hurt accidentally.

Never put empty containers under pressure, high risk of explosion.

2.2 Meaningful protections

the constant presence of the protection device covering the needle tip makes safe the instrument handling.

ATTENTION The unused tool, even if in case of protection on, never has to be reachable by children and incapable people.

CHAPTER 3: ADMITTED AND NON ADMITTED USE

3.1 Aphrometers operating through simple pressure of a free needle: art.10710-a AFRO TR / art.10710-b AFRO TRR

The standard bottles in use are glass ones closed with standard natural, agglomerate and synthetic corks of last generation.

The tools can be also used on champagne corks with cage and cap only if previously drilled or in case of removal of the metal cap.

NOTA 3 **They cannot be used in case of crowns, screw plastic on PET, and plastic to thin wall**

3.2 APHROMETERS with lock, outside seal and guided needle:

The standard bottles in use are glass and plastic ones equipped with coupling collar element, see red arrows pict.2a.

art.10711-c-AFRO TCR fitting crowns

art.10711-p AFRO TPR fitting plastic andscreworpressurePETcaps.

art.10711-s AFRO TSR fitting longcorks also champagne corks equipped with cage and cap on. (the guided needle can pierce the cap also)

NOTA The tool is not indicated if the bottle does not have the coupling collar. see pict.2a.
Do not use the tool if not equipped with the proper sealing kit fitting the cork in use (artt.10717-c-p-s)

Any broken needles due to incorrect guide procedure are not covered by any guarantee.

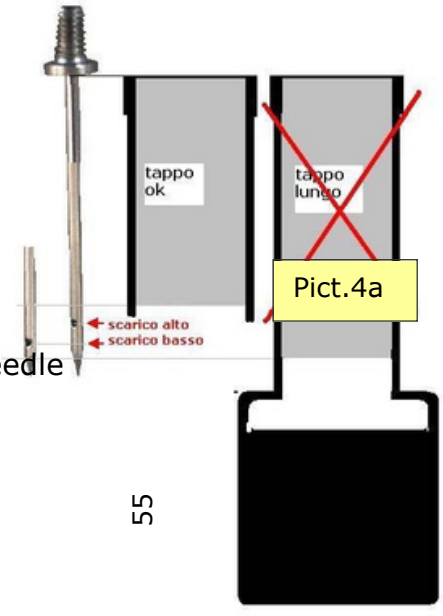
CHAPTER 4: HANDLING and UNPACKAGING O PERATIO N S

The standard tool is supplied packed into a cardboard box and sealed with safety plastic strip.

Should you note evident damages on the package due to impact when unloading it please write it down on the document accompanying the tool and notify one copy to the forwarder

THE MANUFACTURER IS NOT RESPONSIBLE FOR DAMAGES OCCURRED IN TRANSIT

THE WASTE PACKING MATERIAL WILL BE QUICKLY DISPOSED IN DUMPING



Pict.4a

CHAPTER 5: SETTING UP PROCEDURES

5.1 APHROMETERS operating through simple pressure of a free needle pict.4a

5.1a Remove the protection off the needle art. 10718-01

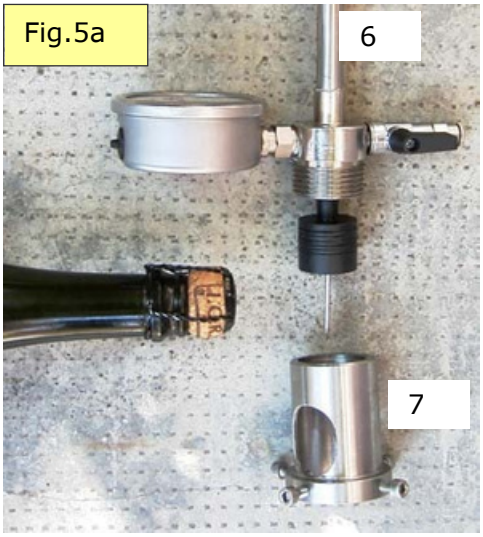
5.1b Makesure of the length of the cork introduced into the bottle, that would have to be passed through with the needle, does not overcome 55 mm.

55

Otherwise forward pls come cork samples and inquiry foraspecial needle with a different length.

5.2APHROMETERSwithlock,outside sealandguidedneedle pict.5a

Fig.5a



5.2.a remove the safety tap and needle protection art. 10718-02

5.2.b Unscrew completely the centralizer support pos 7 to make sure that the kit set on is those matching the cork to be drilled see technical table at page. 2 and pict.2b (crown L 43 PET L40 SPARKLING L33) Push the Kit inside its own seating pict.5a.

5.2.c Press strongly the knob pos1 to let the needle come completely out of the kit. Measure the length of the needle, which should keep outside of the cork to be drilled at least up to the high discharge see pict.5b

5.2.d Place completely the needle inside by pulling the knob pos.1

5.2.e Centring the BOTTLE NECK pict.5a by unscrewing by hand or by means of a 4mm allen spanner the 4 lock screws pos8 to allow the passage of the crown cap or plastic Pet or champagne cork with cage and cap.

Introduce the centralizer support until the 4 lock screws overtake the collar see red arrow pict 2a and 5a

Screw the four screws to keep the neck bottle in central position.

NOTA ATTENTION Do not lock the 4 screws on to the glass. Keep a space of at least 1,5 mm to avoid the bottle breaking.

5.2.f Bottle lockout

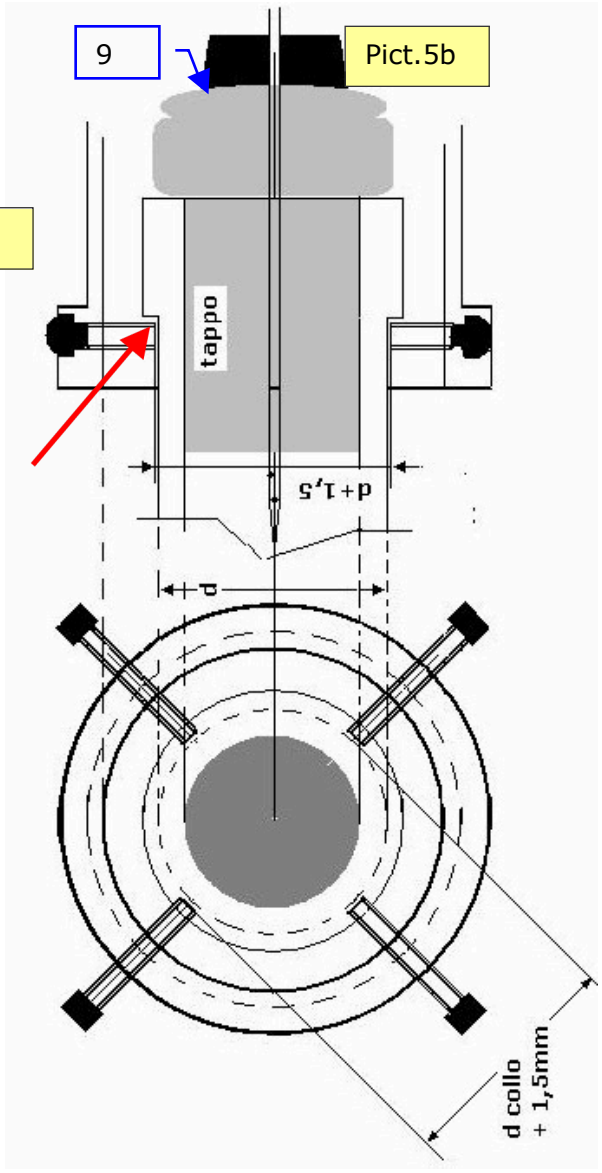
Pull upwards the centralizer support until the 4 screws touch the collar element or the muzzle in case of champagne bottle.

Introduce and screw the moving group pos6 into the centralizer group pos7. pict.5c

Pict.5c

NOTA Tighten strongly, without using any spanners or levers to lock, the rubber ring pos9 on to the cork (see follow §6.2))

Pict.5b



CHAPTER 6: USE-OPERATION

6.1 APHROMETERS with simple pressure of a free ne e dle :

6.1.a Place the standard closed bottle (std cork) on a flat stable surface 20-30 cm from the floor.

6.1.b ONLY in case of art10710b (IMPORTANT close by tightening the discharge valve)

NOTA

6.1.c Put the needle **in vertical pos. on to the centre of the cork to be drilled.**

6.1.d Handle the pressure gauge. Push slowly, **avoiding to let the needle suffer and bear side forces,** until the tip and the two holes come down out of the cork, inside the bottle.

6.1.e The pressure gauge detects the pressure or the existing vacuum inside the bottle.

6.1.f If you wish to check the pressure variation during a period of time, hold the aphrometer inside the bottle the desired time.

6.1.g EXTRACTION/REMOVAL of the needle off the bottle to test evaluation.

Keep the bottle fixed to a stable surface. Take the pressure gauge with one hand and pull strongly upwards to remove completely the needle from the cork. During this operation,

DO NOT ALLOW that the needle is being subjected to side efforts

NOTA 6.1.h ONLY art10710b. If rotating the pressure gauge anticlockwise the valve opens and the test underway annulled.

6.2 APHROMETERS with lock, outside sealing and guided needle:

6.2.a Place the closed bottle with the APHROMETER in positioned and locked (see §5.2) on a flat stable surface 20-30 cm from the floor.

NOTA 6.2.b IMPORTANT Close the valve pos4

6.2c Press constant strongly on the knob pos1 so the tip comes down out of the cork inside the bottle, keep on pushing slowly until setting free the 2 discharge holes. The pressure gauge detects the pressure or the existing vacuum value inside the bottle.

6.2.d If you wish to check the pressure variation in a determined period of time, hold the aphrometer inside the bottle the desired time.

6.2.e EXTRACTION/REMOVAL of the needle from the bottle to test evaluation.

Keep the bottle fixed with one hand to the support surface. Handle the knob pos1 and pull strongly upwards until the complete removal of the needle.

6.2.f Take strongly and unscrew the collector group pos6 respect to the centralizer group pos7 (s.pict.5c)

6.2.g Unscrew at least 2 screws pos8 in order to take the aphrometer out of the tested bottle.

CHAPTER 7 USE of the VALVE (excluded art.10710a)

The valve to rapid connection fitting the rilsan pipe can be used to:

7.1 Injection of compressed air or other gas inside the FILLED BOTTLES. Avoiding to wait for the natural fermentation processes or carry out expensive fillings of sparkling liquids, it is possible to test the corks/closures progress in time (based on determined pressures and specific temperatures) along with those of the bottles prior to distribution and sale.

Never put empty containers under pressure, high risk of explosion

7.2 VACUUM OPERATION (valid only in case of filled glass bottles) by connecting the aphrometer to a proper vacuum pump it is possible to test the corks/closures progress, especially synthetic ones, when used in vacuum corking process and evaluate to what depression the cork on trial is being sucked inside the bottle.

CHAPTER 8 CLEANING and MAINTENANCE

8.1 At the end of each work shift and before storing the tool make sure that the discharge holes of the needle are free and inside there is no residual trial liquid laying.

8.2 Wash the needle with abundant water.

8.3 Clean up the tool with a wet sponge and neutral detergent.

8.2 Rinse and dry it quickly by using an air blower.

NOTA DO NOT USE ABRASIVE SPONGES OR TOOLS.

CHAPTER 9 TROUBLESHOOTING

N	FAILURE	REASON	REMEDY
		(A) APHROMETERSgeneral	
1	The needle is introduced into the closed bottle but the pressure gauge does not show any value	-If the liquid is still the pressure gauge should not detect anything -The up and down discharge holes of the needle are obstructed by some cork pieces or residual product	No defect. Disassemble the needle and let one steel thread pass through it or clean it by using an air blower.
2	The needle is introduced into the bottle regularly closed under vacuum or nitrogen system. The pressure gauge reaches some value but after a while the value falls down to 0.	Leak through the cork/closure	In order to detect in a safe way the exact leak location, put a container full of clean water in quantity enough to hold the whole bottle with the aphrometer in (set on)
		(B) APHROMETERS operating through simple pressure, free needle	
1	The needle is introduced into the bottle regularly closed under vacuum or nitrogen system. The pressure gauge reaches some value but after a while the value falls down to 0.	Only in case of mod 10710b Valve open or defective Leak through the threads Leak through the cork	See §(A)2
2	Needle bended	The needle has been introduced or removed in a wrong or improper way. not under guarantee)	Needle has to be replaced (piece is
		(C) APHROMETERS with lock, outside sealing and guided needle	

1	The needle is introduced into the bottle regularly closed under vacuum or nitrogen system. The pressure gauge reaches some value but after a while the value falls down to 0.	Valve openor defective Leak through the pressure gauge threads Leak through the seals	In order to detect in a safe way the exact leak location, put a container full of clean water in quantity enough to hold the whole bottle with the aphrometer in (set on)