



WATER-RESISTANCE TESTS

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1.0 RECOMMENDED TOOLS FOR TEST 1

Vacuum and air pressure test

Description	Use / Comments	Description	Use / Comments
 <p>Proofmaster S Witschi Ref. 505 300 2002 (220/230V)</p> <p>Proofmaster S Witschi Ref. 505 300 2003 (110-130V)</p>		 <p>Proofmaster M Witschi Ref. 505 300 5564 (220/230V)</p> <p>Proofmaster M Witschi Ref. 505 300 5565 (110-130V)</p>	
 <p>Printer Witschi JB01-740RS232 / 110/220V Ref. 505 900 0029</p>	Printer		

Robert Leaney
 bob@cousinsuk.com
 Cousins Material House Ltd
 14/11/17 08:19

Robert Leaney
 bob@cousinsuk.com
 Cousins Material House Ltd
 14/11/17 08:19



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1.0 RECOMMENDED TOOLS FOR TEST 2

Test in water (mandatory for stock refurbishment on watches 120M and more with screwed in back)

Description	Use / Comments	Description	Use / Comments
 <p>Lititz 125 Bar water tester Ref. 505 300 5560</p>		 <p>Roxer Natator 125 Ref. 505 300 5557</p>	Testing using water
 <p>Roxer Plarox Heating plate Ref. 505 300 0041</p>		 <p>Preciso 47 Heating plate Ref. 505 300 5568</p>	

Robert Leaney
bob@cousinsuk.com
Cousins Material House Ltd
14/11/17 08:19

Robert Leaney
bob@cousinsuk.com
Cousins Material House Ltd
14/11/17 08:19



2.1 TEST 1: VACUUM AND AIR PRESSURE (MANDATORY FOR ALL OMEGA MODELS)

The water-resistance on all Omega watches must be tested with the combined vacuum and air pressure test.

<p>1 2 3</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Vacuum</p> <p>Volume increase</p> </div> <div style="text-align: center;"> <p>Pressure</p> <p>Volume decrease</p> </div> </div>
<p>1 2 3</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div>
<ol style="list-style-type: none"> 1. Choose the appropriate support. For ladies: small support, for gents: big support (see page 2). 2. Place the watch on the support table inside the air chamber. 3. In order to guarantee the best possible test conditions, all watches must be placed in position "dial up" (Except X-33 and Z-33, see Working Instruction 69) and have to be properly centered on the support. 	<ol style="list-style-type: none"> 4. A sensor touching the watch glass, measures if the case volume increases or decreases. <p>The result is an interpretation of the volume increase or decrease of the case in conjunction with the set parameters (see page 3).</p>



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2.2 PROGRAMS AND PARAMETERS FOR ALC 2000 AND PROOFMASTER S WITSCHI

Program	Program Proofmaster S	Watch type	Vacuum	Air pressure	Meas. Time	Limit	Case
P1	C01	All watches with sapphire or mineral glass	- 0.5 bar	3 bar	Auto	1%	Standard
P2	C02	X-33 / Z-33	- 0.5 bar	3 bar	Auto	0.5 %	Standard
P3	C03	Gents watches with plexi-glass	-	0.2 bar 3 bar	Auto	1.0%	Standard
P4	C04	Ladies watches with plexi-glass	-	0.2 bar 3 bar	Auto	1.5%	Standard
P5	C05	Watches ≥ 300M*	- 0,8 bar	5 bar	180 seconds	0.5%	Hard

* During the water resistance test with vacuum and air pressure the helium valve will be kept ¾ open.

Watches with screw-in crown: Always test with the crown completely screwed in!

Maintenance of water-resistance testing machines

Vacuum and air pressure are measured very precisely during a water-resistance testing procedure. The working conditions of the measuring device (e.g. Witschi ALC 2000 / Proofmaster) must therefore be optimal. It is vital to regularly check the condition of the gasket, which ensures the airtightness within the air chamber. It must be clean and dry (no lubrication or silicon). The rim of the gasket and the bottom of the air chamber must be regularly cleaned and free of dust.



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3.1 TEST 2: TEST IN WATER (MANDATORY FOR STOCK REFURBISHMENT ON WATCHES 120M AND MORE WITH SCREWED IN BACK)

Watches with a depth indication of 120M and more are designed to resist high water pressure. Therefore, additionally to the vacuum and air pressure test, a test in water is required. All service types are concerned, except for "Quick Services" where testing vacuum and air pressure are sufficient.

1. Place the watch inside the water chamber.	2. Following testing procedure described on the following pages.....

3.2 WATER TEST SPECIFICATION LIST

The specifications of the water tests have been adapted to better correspond to the operational needs within Customer Service.

Test no.	Description	30M-100M		120M-299M		>299M	
		Pressure in bar	Duration in minutes	Pressure in bar	Duration in minutes	Pressure in bar	Duration in minutes
1	Atmospheric pressure	0	3	0	3	0	3
2	Under pressure	3	30	12	30	40	30
3	Atmospheric pressure	0	30	0	30	0	30
	Water test mandatory?	No		Yes		Yes	

Important:

- Watches equipped with a helium valve: During testing, the valve is completely screwed-in throughout the procedure in the water!
- Watches with screwed-crowns: Always test with the crown completely screwed-in!

Remark:

Only on special request by the customer: Test the watch at the indicated depth and always add a 25% safety margin.
 Example: A watch with an indication of 300M will be tested at 37.5 bar. 30 bar + 7.5 bar (25% safety margin) = 37.5 bar

Robert Leaney
 bob@cousinsuk.com
 Cousins Material House Ltd
 14/11/17 08:19
 OMEGA SA



Robert Leaney
 bob@cousinsuk.com
 Cousins Material House Ltd
 14/11/17 08:19



3.3 CONDENSATION TEST

<p>1. Wipe the watch</p>	<p>2. Between 45° and 50° Celsius, during 20 to 30 minutes</p>	<p>3. = between 18° and 25° Celsius</p> <p>3-29 bars: place on the crystal of the case, a drop of water with a temperature between 18°C and 25°C. The drop should cover approximately 1/3 of the surface of the crystal.</p> <p>30 bars and more: place on the crystal of the case, a sponge soaked in water with a temperature of between 18°C and 25°C.</p>
<p>60 sec</p>		
<p>4. After one minute....</p>	<p>5. Wipe the glass with a cloth</p>	<p>6. Immediately check under a light between 2000 and 2500 lux and colour 5500 Kelvin if condensation appears.</p>
	<p>If no trace of condensation appears, a note notification with signature will be made in the checklist of Working Instruction No 49</p> <p>If trace of condensation appears, the watch is not water-resistant. A notification will be made in the checklist of Working Instruction No 49. Thereafter, the complete water test procedure has to be repeated.</p>	



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3.4 APPLICATION OF THE BLUE POINT

Starting June 1st 2015, we ask that you STOP applying the blue paint dot on watches leaving Customer Service. Please note that all the relevant water resistance tests described in Working Instruction No. 22 remain applicable.

IMPORTANT:

As mentioned above, the blue paint dot is no longer applied in Customer Service. However, a record should be kept of the water resistance tests which have been done. For example: by following a checklist as described in OMEGA's [Working Instruction No. 49](#), "Checklist for Final Check".

Robert Leaney
 bob@cousinsuk.com
 Cousins Material House Ltd
 14/11/17 08:19
 OMEGA SA

Robert Leaney
 bob@cousinsuk.com
 Cousins Material House Ltd
 14/11/17 08:19



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Modifications version Q

New

See point 3.4 on page 9.

Modifications version R

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All the modifications are highlighted in cyan

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