



**DieTronic**  
lubrication technology

***TEST REPORT  
IN DIETRONIC***

***MOD SGQ 06.03***

R	DATE	DESCRIPTION
0	30/04/2018	First issue

CHECK	APPROVAL
RSGQ	DG

**Technical information of the partly completed machine**

<b>Name:</b>	SAGOMA
<b>Product:</b>	Q.M. - Quasi-machine
<b>Model:</b>	SAGOMA 2000
<b>Serial number:</b>	20241113
<b>Review:</b>	00 - 15/03/2017 12.17.02
<b>Year of manufacture:</b>	2025
<b>Brand:</b>	Dietronic s.r.l.
<b>Intended use:</b>	Partly completed machine for metal sheet lubrication
<b>Description:</b>	The SAGOMA series is a partly completed machine

Created by:	Inspected by:	Validated by:	Date:	Observations:
Boera Stefano	Cosentino Dario	Tavazzi Davide	24/03/2025	

### **Risk Assessment overall status**

Directive 2006/42/EC of European Parliament and the Council of May 17<sup>th</sup> 2006 on machinery and amendments of Directive 95/16/EC

#### **Manufacturer: Dietronic s.r.l.**

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<i>Address</i>	<i>postal code</i>	<i>Province</i>
Sant'Angelo Lodigiano	Italia	
<i>City</i>	<i>Country</i>	

#### **Machine:**

Partly completed - machine for metal sheet lubrication			
<i>Intended use</i>			
SAGOMA 2000	20241113	2025	00 - 15/03/2017
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### 1. Materials and products

The materials or products used for the construction of the machine or originated during its use must not represent a risk for people's safety and health. In particular, in case of fluids usage, the machine must be designed and built to prevent risks due to filling, use, recovery and evacuation.

Standards: **ISO/TR 14121-2** and **EN ISO 12100**

Scheduled action: Visual inspection of the correct construction of the machine frame and the cutting-edge assembly of all parts including the mechanical and pneumatic components.

Sealing test of tanks and oil hydraulic circuit with max 3 bar pressure.

Outcome: OK

Date: 24/03/2025

Notes:

Possible intervention method:

Closing date: .....

### 2. Machine design for the purpose of handling

The machine, or each of its different components, must be handled and transported safely.

The machine is equipped with accessories that facilitate a safe handling with a lifting device or has a shape that allows the lifting means to adapt easily.

Standards: **ISO/TR 14121-2**, **EN ISO 12100**, **EN 1005-2** and **EN 1005-4**

Scheduled action: Visual inspection of the correct construction of the machine frame.

Lifting and handling tests of the machine and all its components.

Outcome: OK

Date: 24/03/2025

Notes:

Possible intervention method:

Closing date: .....

### 3. Safety and reliability of the stop systems

The control systems must be designed and built in such a way as to prevent the dangerous situations.

The following information requires a particular attention:

- the machine must not start unexpectedly,
- the parameters of the machine must not change in an uncontrolled manner, because such a change can lead to dangerous situations,
- the machine must not be prevented from turning off if the stopping command has already been given,
- no moving part of the machine or processed piece must fall or be thrown out,
- the manual or automatic stop of moving parts of any kind must not be prevented.

The machinery must be equipped with a control device that allows the general shutdown in safe conditions

The machine stop control must take priority over the start controls.

Once the machine or its dangerous operation has been stopped, the power supply of the corresponding actuators must be cut.

Standards: **ISO/TR 14121-2; EN ISO 12100, EN ISO 13849-1, IEC/EN 62061 and EN 60204-1**

Scheduled action: System shutdown by means of emergency button and inspection of the proper operation.

Outcome: OK

Date: 24/03/2025

Notes: Inspection of the correct online operation.

Possible intervention method: Check the correct operation after putting into service the partly completed machine.

Closing date: .....

### 4. Selection of the control or operating mode

The selected control or operating mode must have priority over all other control or operating modes, except for the emergency stop.

Each selector position, which must be clearly identifiable, must correspond to a single control or operating mode.

Placed on the switchboard, the selector allows the operation of the partly completed machine in automatic running condition if the system is online or in manual mode (maintenance), in case of a system outside the production line.

Standards: **ISO/TR 14121-2; EN ISO 12100, EN ISO 13849-1, IEC/EN 62061 and EN 60204-1**

Scheduled action: Inspection of the correct operation.

Outcome: OK

Date: 24/03/2025

Notes:

Possible intervention method: Check the correct operation after putting into service the partly completed machine.

Closing date: .....

### 5. Electrical specifications

The machine is powered with electricity, therefore it must be designed, built and equipped in such a way as to prevent or to allow the prevention of all hazards caused by electricity.

Standards: **ISO/TR 14121-2; EN ISO 12100** and **EN 60204-1**

Scheduled action: Inspection of the correct operation (mechanical and electrical inspections)

Outcome: OK

In compliance with standards and regulations. Power voltage according to specifications.

Wiring and devices selection according to specifications. Operating conditions followed.

Date: 24/03/2025

Notes:

Possible intervention method:

Closing date: .....

### 6. Noise

The machinery must be designed and built in such a way as to reduce to the minimum level the risks caused by the emission of airborne noise

Standard: **ISO/TR14121-2; EN ISO 12100 ISO 3743-1; ISO 3743-2; ISO 3744; ISO 3745; ISO 3746; ISO 3747; EN ISO 11200; EN ISO 11201; EN ISO 11202; EN ISO 11203; EN ISO 11204; EN ISO 11205; EN ISO 11688-1** and **EN ISO 4871**

Scheduled action: Inspection of the sound pressure lower than 80 dB (A) by using a sound levelmeter.

Outcome: OK

Date: 24/03/2025

Notes:

Possible intervention method:

Closing date: .....

### 7. Information and information devices

The information necessary for operating the machine must be provided in a clear and easily understandable way. The amount of information must not exceed the operator's ability of processing and understanding.

Standards: **ISO/TR 14121-2; EN ISO 12100; EN 894-1; EN 894-2; EN 61310-1; EN 61310-2; EN 61310-3; EN 842 and EN 981**

Scheduled action: Supply of manuals and all the required documentation in Italian - English (as specified) to accompany the machine.

Outcome: OK

Date: 24/03/2025

Notes:

Possible intervention method:

Closing date: .....

### 8. Machine labeling

Each machine must be marked, in a visible, legible and indelible manner, at least with the following information:

- company name, full address of the manufacturer and, where relevant, of his authorized representative,
- machine designation
- «CE» marking (see. Annex III),
- series or type designation,
- if necessary, serial number,
- year of manufacture, i.e. the year in which the manufacturing process was completed

Standards: **ISO/TR 14121-2; EN ISO 12100 and EN 82079-1**

Scheduled action: Application on the switchboard of the CE plate showing the data according to current legislation.

Outcome: OK

Date: 24/03/2025

Notes:

Possible intervention method:

Closing date: .....



### **9. Signs**

The machine is equipped with all the necessary signs to signal the hazards, where present, and any indications for maintenance and control.

Standards: **ISO/TR 14121-2; EN ISO 12100; EN ISO 13849-1; IEC/EN 62061** and **EN 60204-1**

Scheduled action: Signs application according to current legislation. Visual inspection

Outcome: OK

Date: 24/03/2025

Notes:

Possible intervention method:

Closing date: .....

## 10. Electrical components inspection

Component	Schedule method	Test Performed	Outcome:
Tanks level switches	Inspection of the correct electrical and mechanical operation	Tried the level of each tank manually by lifting the float. Subsequently tested with oil.	OK
Tanks heating system	Inspection of the correct electrical operation	Tested proper thermostat startup (minimum level covered, panel activation and temperature set to 70 degrees). Heater activates and temperature remains constant.	OK
Teach-in System	Inspection of the correct electrical operation	Passed sheets of different sizes with panel activation of the teach-in. Verified that the shape is fully detected each time.	OK
Mixer	Inspection of the correct electrical and mechanical operation	Tried several times mixer cycle in automatic, adjusted minimum and maximum level sensors, checked correct encoder operation for gear pump	OK
Efficiency Single oil solenoid valves	Inspection of the correct electrical operation	Verify that each control actually controls the correct valve.	OK
Efficiency Heating manifold system	Inspection of the correct electrical operation	Set temperature to 40 degrees and verified correct modulation and no alarms. 48vdc presence check on EVP board (or new MXP).	OK
Efficiency motor suction system lubrication machine	Inspection of the correct electrical operation	Checked the suction by spraying the product to see the reduction of the oily cloud coming out of the spraybox. Checked correct rotation of the suction fan.	OK
Motor Conveyor system inspection	Inspection of the correct electrical operation	Conveyor motion control at different speeds	OK
Flow Control Nozzle	Inspection of the correct electrical operation	Checking correct activation of individual injectors and correct opening nozzle at different percentage PWMs	OK
Lifting motor upper spray head	Inspection of the correct electrical operation	Adjustment of upper spraybox lift sensors and proper movement and stop control	OK
Safety switch	Inspection of the correct electrical operation	Emergency circuit security intervention control, gates and alarm intervention control	OK
Efficiency main air pressure regulator	Inspection of the correct electrical operation	Pressure setting at 6Bar and minimum air presence limit at 3Bar. Air shortage alarm intervention control.	OK

# 11. Pneumatic and oil-hydraulic components inspection

Component	Schedule method	Test Performed	Outcome:
Pneumatic and oil-hydraulic circuit	Inspection of the correct Pneumatic and hydraulic operation	Connection to main air and check for leaks by setting pressure in the oil and spray circuit without oil.	OK
Oil pump	Inspection of the correct Pneumatic and hydraulic operation	Adjusting oil pump and checking for proper operation in automatic mode.	OK
Refill oil pump	Inspection of the correct Pneumatic and hydraulic operation	Checking recharge pump operation and proper activation when the maximum level is not covered	OK
2nd Oil pump	Inspection of the correct Pneumatic and hydraulic operation	Adjusting oil pump and checking for proper operation in automatic mode.	OK
2nd Refill oil pump	Inspection of the correct Pneumatic and hydraulic operation	Checking recharge pump operation and proper activation when the maximum level is not covered	OK
3th Oil pump	Inspection of the correct Pneumatic and hydraulic operation	Adjusting oil pump and checking for proper operation in automatic mode.	OK
3th Refill oil pump	Inspection of the correct Pneumatic and hydraulic operation	Checking recharge pump operation and proper activation when the maximum level is not covered	OK
4th Oil pump	Inspection of the correct Pneumatic and hydraulic operation	Adjusting oil pump and checking for proper operation in automatic mode.	OK
4th Refill oil pump	Inspection of the correct Pneumatic and hydraulic operation	Checking recharge pump operation and proper activation when the maximum level is not covered	OK
Solenoid valve	Inspection of the correct Pneumatic and electrical operation	Checking correct switching of valves	OK
Wiping system	Inspection of the correct Pneumatic and electrical operation	Checking wiper operation and reed sensors	OK
Efficiency Single Spray nozzles	Inspection of the correct Pneumatic and hydraulic operation	Checking correct oil delivery at different pressures and PWM (injector opening) rates	OK
Efficiency Single Air valve	Inspection of the correct Pneumatic and electrical operation	Control matching value set on panel with value displayed on proportional valve.	OK
Quality of the shape	Inspection of the correct Pneumatic and electrical operation	Checked that the shape conforms with what is seen on the panel.	OK

Date: 24/03/2025

Signature: TAVAZZI DAVIDE