



Dear Customer,

due to the COVID-19 outbreak, in many countries productive activities have been forced to stop their operations. In case this happened to your Company too, Itema prepared some instructions and tips to safeguard your Itema machines during the shutdown period and to be fully prepared to easily and successfully restart weaving operations when possible.

ELECTRICAL SUPPLY

 **During Shutdown**

- Machine cabinet power input switch and distribution box switch must be kept in SWITCH OFF mode.
- Machine cabinet must be kept closed, avoiding dust accumulation.
- By using specific products (such as silica gel packet) you can avoid moisture creation in the cabinet.

 **When Restarting**

- Check company main power line, it must be in the limits, as before stop.
- Check main power line on distribution box exit (or stabilizer, if it exists); it must be in the limits.
- Remove eventual anti moisture product used.
- Eventual dust inside the cabinet can be removed by aspirating it, preferably not by blowing to avoid tucking dust inside boards components.
- Switch on machines main cabinet one by one, not all together, checking the voltage input.
- Check the rotation of oil pump motor; it should not change but it occurred due to main power line supplier problem/mistake.
- Machines are equipped with buffer battery, but if they are not in good condition there is a chance of data getting erased due to machine remains stop for long time, and so battery must be replaced during restarting or afterwards. Data can be reinstalled without any function problems.

ITEMA WEAVING MACHINES (Rapier, Rapier Terry, Airjet, Projectile)

 **During Shutdown**

- Machines must be kept in clean condition without dust particles accumulation.
- Machines must be protected to avoid excessive moisture deposition; they can be protected by using proper greasing and lubricants anti rust oils on machine surfaces or parts subject to rust. Pay attention to not spray anti rust on bearings.
- For rapier machines, tapes might be removed or keep them in transfer position at centre, to avoid eventual deformation which may occurring with long idle period.

 **When Restarting**

- Remove anti dust protection and eventual dust accumulated on the machine.
- Remove anti rust oil or grease protection.
- Check beam condition and weft packages and clean them from eventual dust, to allow a better restarting performance.
- Check overall lubricating condition such as under motion, heald frames connection, bearings others mechanical parts, Itema maintenance manual can guide you, lubrication section.
- Check machines overall condition, covers-packages creel, ensure nothing occurred during the stop.
- Ensure waste selvage proper recovery tension, to avoid it wrapped on press roller cylinder at restart.
- Oil pump motor starts before machine starting. However as a safety start the machine a few picks at slow speed to ensure lubrication on all parts required.
- For rapier machines, start the looms at running-in speed for at least one hour, according with the table provided in the Use and Maintenance Manual (for R9500 and R9500², see Section 4, chapter 3.2).
- If the machines remained idle for particularly long period, before rising the speed to standard production speed, it is recommended to proceed with preventive maintenance by checking the propeller drive screw lubrication hose condition as described in Use and Maintenance Manual (for R9500 and R9500², see Section 4, chapter 13.3.7).

- Further cleaning suggestions
 - ▶ **TOUCH-SCREEN CONSOLE**

Cleaning/disinfecting cleaners with commonly used chemicals (i.e. Ethanol, Isopropanol, Ethyl) can be employed without provoking problems when adopted with the here below precautions:

 - Use a soft lint-free cloth
 - Be sure that the cloth is only slightly dampened, not wet. Never apply the cleaner directly on the touch-screen panel surface
 - Never use acidic or alkaline cleaners (neutral pH), or organic chemicals such as: paint thinner, acetone, toluene, xylene, propyl or isopropyl alcohol, and kerosene
 - Suitable and dedicated cleaning products are commercially available (i.e. Screen Mom, Ecomost)
 - Please note that use of incorrect cleaners can result in optical impairment of the touch-screen panel and/or in a damage to the console functionality
- ▶ **OTHER PARTS**

As general rule, all the parts regularly handled by the operator such as cabinet switch, push buttons, emergency buttons, feeders, other machines devices, protection covers, front breast cover, it is advisable to not clean them with organic/aggressive chemical products.

AIR CONDITIONING (Rapier, Rapier Terry, Airjet, Projectile)



During Shutdown

- If possible the air condition system should remain in operation to control moisture percentage and to avoid condensation form.
- Air condition filtering system must be kept clean.



When Restarting

- Air condition system should be put in operation 1–2 days before production starting in order to restore moisture percentage and to restore the optimum environmental condition which allow to start with a better performance of the machines.

COMPRESSED AIR SUPPLY



During Shutdown

- Drain the residual air present in the machines.



When Restarting

- Ensure air compressor is in proper conditions according relevant manufacturer recommendations.
- Ensure air installation network is in proper conditions, no air leakages, and nothing occurred during the stop.
- Ensure there are no air leakages of machine air installation. By restarting single machines one by one it is easier to find eventual leakages which cannot be found when all are running in production.
- Main air valve input must be kept closed.
- Ensure the air is completely dry and not contaminated by water or oil molecules, which might damage valve, rely nozzle, sensors, and might affect machines performance too.
- For rapier machines equipped with Rotocut device, make sure to drain the eventual condensate water from the air pipe between distribution pressure regulator and blade cleaning nozzle.

NB: please note that in general we always recommend to consult the Itema machines Use and Maintenance manual “Periodical Maintenance and Lubrication” chapter.

Dear Customer, our worldwide after-sales service teams remain at your disposal for any further clarification or in case additional guidelines might be required. Do not hesitate to contact us through our usual channels.

STÄUBLI SHEDDING MACHINES

STÄUBLI DOBBY AND CAM BOX

1. Please clean the dobbie / cam box surface and remove fluff from it. Once cleaned, proceed with cleaning the oil filters with normal air pressure.
2. For cam boxes, stop the machine in “un-level position”.
3. For dobbies, select all down design (levers up).
4. Release the warp beam tension for cam box and dobbies.
5. Please clean complete under motion with compressed air pressure. NB: Air should be dry.
6. Once again, only after a long standstill period, put some oil drop on DRC 10 hooks and grease connectors (do not put excessive amount of oil, otherwise it can create reverse effect).
7. Lubricate the slides from DRC 4 supports, lubricate the bronze rings of the joints and grease connectors.
8. After the end of the lockdown and before starting-up the machines, kindly do the greasing of complete under motion till the old dry grease comes out from bearings.
9. Before start-up of the machine, please check oil level of cam box and auto levelling unit.
10. For dobbies, if possible, select plain weave for all units and make inching for few picks (more than 200 rpm) to lubricate all the jack levers before starting-up.
11. Before starting-up cam boxes and dobbies, open the cover and put some oil on the parts. Same operation shall be made on the cam motions rollers (from the top).
12. **Refer to Stäubli user manual for additional details** or contact your Stäubli representative if you need any additional help.

STÄUBLI ELECTRONIC JACQUARD MACHINES

1. For CX860, CX960, CX1060, CX870, CX880, LX1600B, LX3200, LX3201 electronic Jacquard machine models:
 - i) Please remove fluff from all jacquard machine surfaces and from harnesses, if any.
 - ii) Kindly stop all jacquard with all down design and at zero degree of Jacquard. All jacquard covers should be installed.
 - iii) Release warp tension of the beam.
 - iv) While restarting the jacquard machine, kindly do the greasing on all the points including cardan shaft till old grease comes out and proceed by making inching step by step for few picks and then fast running. Magnet heating may be required on CX** and LX1600, LX3200 and LX3201 machines.
 - v) Check oil level in jacquard and gear box.
2. For DX80, DX100, DX110, SX, LXE, LX1602, LX3202, LX3072, LX4096, LX5120, LX6144, LX8192, LX12288 electronic Jacquard machine models:
 - i) Please remove fluff from all jacquard machine surfaces and from harnesses, if any.
 - ii) Kindly stop all jacquard with all down design and at zero degree of Jacquard. All jacquard covers should be installed.
 - iii) Release warp tension of the beam.
 - iv) While restarting the jacquard machine, kindly do the greasing on all the points of the cardan shaft till the old grease comes out and proceed by making inching step by step for few picks and then fast running.
 - v) Check the oil level in jacquard and gear box.

Please refer to the Stäubli user manuals or contact your Stäubli representative if you need any additional help.

For any further question or clarification, please contact directly your local Stäubli assistance.

BONAS JACQUARD MACHINES

 **During Shutdown**

- It is preferable that the machine should stay stopped with all heddles on same position to avoid different loading of harness cords,
 - Ideal is cross-shed position on shed-level.
- Power off.

 **When Restarting**

- Grease can solidify during longer stops so it is better to fully re-grease all the mechanism points.
- Re-grease the cardan shaft including bearings and spline:
 - as described in manual.
- Check oil quality (check for discoloration, emulsification or solidification).
- Check for oil leaks (sealings and joints get more brittle when being cool for longer periods).
- Check the filters condition:
 - Replace where necessary.
 - Otherwise clean the filter in accordance with the manual.
 - Respect the air flow direction and expel the dust out of the filter and not through.
 - This applies to the 96 mm dual stage in particular.
- Please be shure all covers are correctly fitted.
- Check for ingress of moisture.
- Maintenance on brakes?
- Operation of fans (Fans of JQ are monitored and any problems will be shown by auto diagnostic systems).
- For machines equipped with smart-drive (servo):
 - Check for leaks on water-cooling (also here joints can get more brittle).
 - Check correct operation of holding brakes.
- **At start-up:**
 - Risk of higher starting power surge, after long stop:
 - do not start all machines at same time
 - do start machines for 15 minutes to 30 minutes at a speed that is 15% lower then normal operating speed.

Please refer to the Bonas user manuals or contact your Bonas representative if you need any additional help.

INSTRUCTIONS FOR OTHER JACQUARD MACHINES MANUFACTURERS

Please refer to the manufacturer official User Manuals for all the products or contact directly the local Service.



We hope these instructions will support you in maintaining your weaving machines at their best conditions. Feel free to contact your Itema After-Sales Service responsible in case of any further support.

Looking forward to meeting you as soon as possible, sincerely,

Your Itema Care&Protect Team