

Job No./Estimate No.:

Machine Model: All Injection Molding Machines

Service Notice

Short to Long-period stoppage and restarting of injection molding machines

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Please contact any JSW office to speak with service if abnormal alarms have occurred after powering on the machine from an extended period without power. We may be able to resolve the issue over the phone.

Corona, CA (951) 898-0934
Lake Zurich, IL (847) 550-0704

When replacing backup batteries, machine must be powered on.

Long-period stoppage and restarting of injection molding machines

To operate the injection molding machine safely after stopping it for a long time, it is essential to store it properly and perform appropriate maintenance before restarting.

Listed below are problems that may occur and cautions that should be exercised if the injection molding machine is left unused for a long period without supply of power. (Note: What is referred to as 'long-period' is two months or more. For instances of a few weeks to a month text will be underlined.)

1. Problems and concerns that should be considered

- (1) Shift of home positions as the injection unit, the platens and the mold thickness adjusting device are shifted while the power is OFF. (It is impossible to measure the positions while the power is OFF.)
- (2) Failure of boards and electronic components due to dew formation.
- (3) Burnout of heaters if power is resumed with deteriorated insulation resistance caused by moisture.
- (4) Deterioration of electrolytic capacitors (release of capacitance)
- (5) If the storage place is very dusty, dust intrudes the control panel and the circuit breakers and causes them to malfunction.
- (6) Abnormal wear of bushings and slide plates as the sliding surfaces are rusted.
- (7) Failure of mold thickness adjustment action resulting from rusting that occurs between the tie bars and the housing.
- (8) Damage to the ball screws and abnormal wear of bushings caused by insufficient lubrication that results from hardening and clogging of grease.
- (9) Failure of hydraulic components and rusting of the interior of the oil reservoir and the pipes if oil is not supplied to the hydraulic circuits.
- (10) Damage to the accumulator bladder, deterioration of hydraulic oil and entry of water into the hydraulic oil. (Refer to the Instruction Manual for the accumulator.)
- (11) Rusting of pipes from water if the machine is rested for a long period after molding operation.

2. Cautions to be exercised before stopping the machine and during storage

- (1) Store the machine in a good environment.
Storage temperature (+5°C to +35°C), with low humidity, nearly free from harmful gas
- (2) Back up the molding condition.
- (3) Power the machine at regular intervals to prevent capacitors from getting deteriorated. (once every two months as a measure)
- (4) Put a sheet cover or something over the machine.
- (5) Apply rust preventive measure.
- (6) Perform mold thickness adjusting action regularly to prevent it from failing. (once every two months)
- (7) Supply grease regularly to prevent deficiency of lubrication and rust formation. (once every two months)
- (8) Blow air into the cooling water piping system before stopping water supply.
- (9) Release the nitrogen gas in the accumulator bladder slowly, watching the oil level gauge.
- (10) Purge the heating barrel with such corrosion-free resins as PP and stuff the barrel with resin before stopping the machine.
- (11) Inspect the inside of the control panel and put desiccant in it. (to be free from moisture and oily matter)

3. Cautions to be exercised before restarting

When restarting the machine, we recommend contacting JSW service if unusual alarms occur once powered up or when the machine is running production.

The following should be executed:

- (1) Inspect the insulation resistance before power ON. (Confirm the insulation resistance of the servo motor.)
- (2) If necessary, calibrate before operation. (pressure, injection position, platen position, and mold thickness position)
- (3) Confirm that the shot size range of the machine matches original specification. (If range displayed is “0 to 0 units” system data may be lost. Contact JSW service)
- (4) Heat the machine gradually till it dries up. Then heat the machine to molding temperature.
- (5) Confirm the lube oil level in the bearing casing and the gear reducer.
- (6) Confirm that grease is being supplied positively to all lubrication points. (In the case of ball screws, discharge old grease thoroughly.)

- (7) Replace the hydraulic oil in the oil reservoir and the units, inspect and clean filters and replace them if necessary.
- (8) Check for rusting and other abnormalities.
- (9) Fill nitrogen gas into the accumulator bladder. For the charging pressure, refer to the Instruction Manual.
- (10) Sufficiently purge the heating barrel. If foreign matter is generated, disassemble and clean the heating barrel.
- (11) Clean the machine with rust preventive compounds and clean the entire machine.

NOTE 1: For actual operation, contact JSW service. (chargeable service)

NOTE 2: Use only JSW approved grease brands/types. Malfunction may arise if a grease brand/type other than those we recommend is used.

* For cautions not specified above, or further explanation refer to the Instruction Manual or contact JSW service.

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