Content:

11 Main Machine Error Codes

Main Machine Error Codes - Causes & Remedys

DSP-Controls from DSP3

Alarm 2008
Check cooling circuit cooling unit
Cause: The temperature has risen above set value for a set time and is not dropping.
Reaction: Alarm on screen
Remedy: Check out the water too the glycol unit and general operation of this unit.

Alarm 2101
Suction filter clogged
Cause: The suction filter (oil cooling) is contaminated
Reaction: Stop of cycle after purging, alarm system On, motor Off
Remedy: Replace the filter in question. Can be cleaned but better replaced

Alarm 2102
Pressure filter contaminated
Cause: The pressure filter is contaminated
Reaction: Stop of cycle after purging, alarm system On, motor Off
Remedy: Replace the filter in question. Can not be cleaned

Alarm 2103
Hydraulic oil level low
Cause: The oil level below minimum level
Reaction: Stop of cycle after purging, alarm system On, motor Off
Remedy: Refill oil to required level. Always use a filter to filter the oil in

Alarm 2104
Disturbance in central lubrication
Cause: Can have additional number i.e 1 or 2
Reaction: Stop of cycle after purging, alarm system On, motor Off
Remedy: If number 1 central lubrication has not made pressure switch. Check for oil leaks or pipe split. Check pressure switch.
If number 2 then pressure switch is made. Check pressure switch or blockage in pipes.

Alarm 2107
Pump motor of oil fine filter overloaded
Cause: Pump motor of fine filter unit mounted on injection unit is not working
Reaction: Stop of cycle after purging, alarm system On, motor Off
Remedy: Check that motor has not tripped out or contactor is made. Will only work when oil is up to temperature.

Alarm 2108
Connection interrupted between IMC and ????
Cause: The injection moulding computer has lost its connection with the other system
Reaction: Stop of cycle, alarm system On, motor Off
Remedy: The machine will have to be powered off and on again. Check voltages cables between the two systems and possibly the SPV print.

Alarm 2109
Empty the leak oil container
Cause: There is a level switch in the leg of the machine which has now made.
Reaction: just alarm on pre warning but has another switch that will stop machine
Remedy: Drain the leak oil from drain point under clamp.

Alarm 2126
Handling device interlocks cycle
Cause: The robot is not correct for machine to operate
Reaction: unable to close mould
Remedy: Reference the takeout robot. Check cams on bed of machine

Alarm 2144
Mould open position overran
Cause: The mould has opened more than 5mm of its open position S34
Reaction: Stop of cycle
Remedy: Check mould open /close for smooth operation. Set C239 = 2 and run in auto for approximate 10 cycles and see if mould open position gets better. Should be about 1mm overrun from S44 but to a maximum of 1.5mm overrun. Can be seen on S150

Alarm 2154
Inadmissible status of input mould locked
Cause: The position of mould locked can not be correct
Reaction: unable to run machine in auto
Remedy: Check cams on bed of machine. Reset clamp force/ mould height S90. Take off clamp force by hand (wind back mould height). Lock over toggles in setup mode. Bring mould faces together by bringing forward mould height. Open mould, put into hand and set C238=1. Press to set clamp force automatically. C238 should automatically reset to zero if all ok.

Alarm 2170
Dosing quantity too small
Cause : All configured screws are at the front stop (fixed mould platen) and the injection piston's metering end point has not been reached.
Reaction : Alarm system On
Remedy : Increase the metering stroke of the configured screws

Alarm 2171
Slide not in position
Cause: The plug-in slide could not be moved to the desired position.
Reaction: Production stands still for as long as the slide is not in the desired position. During production the slide's reaching the end position is awaited, otherwise all movements and sequences are stopped.
Remedy: Check the activation of the plug-in slide (slides that direct the plastic from the screw to shooting pot)

Alarm 2172
End of dosing not reached
Index: A Screw A B Screw B
Cause: The end of metering of the corresponding screw was not reached within 30s.
Reaction: Alarm system On
Remedy: Check material supply material temperature.

Alarm 2173
Overdosed, screw
Index A Screw A B Screw B
Cause: The maximum metering stroke (S832) of the corresponding screw was exceeded.
Reaction: Screw stop Alarm system On
Remedy: Check parameters S29 and S229

Alarm 2174
Revolutions are limited for screw
Index: A Screw A B Screw B
Cause: If the screw speed on closed loop speed control is limited by N29, this alarm is output.
Reaction: Speed is limited as per N29.
Remedy: Reduce the metering reserve (T24) if possible

Alarm 2175
Electric drive metering: not ready
Index: A Screw A B Screw B
Cause: The Inverter drive for the screw drive is not ready.
Reaction: The motor is stopped Starting of the drive is prevented Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: The drive should be checked. See what error codes are on drive

Alarm 2176
Limit switch slide position purging defective
Cause: The plug-in slide is not in the purge position (manual purging).
Reaction: All movements are stopped
Remedy: Check the activation of the plug-in slide (slides that direct the plastic from the screw to shooting pot)

Alarm 2177
Limit switch slide position injection defective
Cause: Limit switch position does not correspond to plug-in slide position.
Reaction: Blocked until position is correct Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Check activation of plug-in slide and limit switch position (slides that direct the plastic from the screw to shooting pot)

Alarm 2178
Limit switch slide position transfer defective
Cause: Limit switch position does not correspond to plug-in slide position.
Reaction: Blocked until position is correct Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Check activation of plug-in slide and limit switch position (slides that direct the plastic from the screw to shooting pot)

Alarm 2179
T-piece cannot be identified
Cause: The T-piece (type of plug-in slide) cannot be identified on the basis of the coding (Inadmissible bit combination).
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Check the coding the barrel is coded so the machine knows what screw is fitted. This coding needs to be checked. Mounted in the heater plug going to barrel.

Alarm 2180
Pressure controller overdriven, screw
Index: A Screw A B Screw B
Cause: Controller overdrives on metering
Reaction: None
Remedy: Material temperature should be checked

Alarm 2181
Speed controller overdriven, screw
Index: A Screw A B Screw B
Cause: Controller overdrives on transferring
Reaction: None
Remedy: Reduce transfer speed (V121 and V221, respectively) if appropriate Check transfer time T235 and compare with setting sheet. Can also be moog valve or velocity transducer?

Alarm 2182
Barrel temperature not within band
Cause: Temperatures of plasticizing unit are not within band
Reaction: All movements are stopped Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On

Alarm 2183
Dosing electric drive: external aeration responded
Index: A Screw A B Screw B
Cause: External aeration of the screw motors failed
Reaction: None (prewarning)
Remedy: check cooling of drives Water cooling now.

Alarm 2184
Electric drive metering: Warning
Index: A Screw A B Screw B
Cause: Temperature of screw motor too high
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system on
Remedy: Check drives alarms; reduce speed (revs.) if appropriate. Check material temperature

Alarm 2185
Dosing electric drive: Current supervision rectifier responded (In other words: Current monitoring of the drive responded, screw)
Index: A Screw A B Screw B
Cause: See alarm text
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system on
Remedy: Make sure no mechanical problem prevails Reduce speed (revs.) if appropriate, check drive alarms

Alarm 2186
T-piece code does not correspond to program (see C45)
Cause: Programming of the active screws does not correspond with the T-piece configuration
Connector (type of plug-in slide).
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system on
Remedy: Correct the programming or the coding

Alarm 2187
Screw has been slid to mechanical stop
Index: A Screw A B Screw B
Cause: The screw in question was pushed to the front stop and the operating mode does not
Correspond to the setup mode.
Reaction: If all activated screws are at the front mechanical stop, the transfer is stopped.
Remedy: Check S29 and S229, respectively Check S24, transfer time, material

Alarm 2189
None permitant closing movement of mould
Cause: The permanent position supervision checks the standstill and movement direction of the mould and prevents too far an over travelling of the mould open position. However, it is not effective in the Setup mode.
Reaction: machine stops.
Remedy: Check mould opening smoothness, set C239=2, slow mould opening up

Alarm 2205
Excessive hydraulic pressure during injection
Cause: The pressure during the injection phase has exceeded the set value P101 / T201 P102/T202
Reaction: machine stops at end of cycle. Will also reduce hold pressure to zero during faulty cycle. If during purging, purging will stop
Remedy: Check that nozzle/mould is at temperature. There are no blockages in mould. Check filter in nozzle or material is degraded.

Alarm 2218
Start interlock ------
Cause:
Reaction:
Remedy:

Alarm 2233
Calibration of loop control processor for the screw is required
Cause: The calibration data for this machine filed in the PROM indicate that the stroke
Measuring systems for the screws and the injection piston are not calibrated.
Reaction: Screw movements are blocked
Remedy: Calibrate the screw stroke measuring systems

Alarm 2235
Accumulator overload
Cause: The pressure has gone over the set value P242 (240 bar)
Reaction: Pump switched off but you are able to start again
Remedy: Check the system pressure. Gauge mounted back injection unit. Can be valve stuck on charging circuit, dirt in restrictors of charging circuit or faulty pressure transducer

Alarm 2236
Oil pressure measuring defective
Cause: Usually followed by an index, 0 = you already have had a oil pressure measuring fault
1 = internal hard ware error
2 = if the pressure does not change by P243 (0.5bar) and T241 then we get this alarm.
3 = after first charge of the accumulator if the pressure then drops below P246 then we get this alarm
4 = If the pressure goes above P823 during the time T815

Reaction: unable to switch on pump until fault cured. If you get index 0 then you need to power off/on of machine
Remedy: Check pressure transducer, pressure gauge to see if pressure is correct. Charging circuit and pump.

Alarm 2239
DSC error mould …….
Cause: Usually has an index but this just indicates missing data from transducer for mould position
Reaction: Stop of cycle
Remedy: Check the magnet has not rubbed against the rod. This will take quite a bit of wear so if it has rubbed the rod adjust it so it now has a clearance around it and try again. Replace transducer. Replace ASC card or DSC card. Check dip switches and jumpers on card if fitting new one

Alarm 2429
Mould waiting in vain for release condition
Cause: Mould would like to close but it has not been given the signal
Reaction: mould will not close
Remedy: Possibly robot or ejector stopping mould from closing

Alarm 2465
Heating current monitoring of plastering unit ….
Cause: one of the heaters is not working
Reaction: stop machine at end of cycle heating switched off
Remedy: Check trips for heating, lower all set values and bring each one on in turn until you get alarm then you know which one is defective

Alarm 2468
Limit switch for robot release not made B1014
Cause: The robot was triggered to go into mould and the switch on machine bed was not made
Reaction: Stop of cycle after purging, alarm system on,
Remedy: Check switch on bed of machine, mould open position, S103.

Alarm 2490
Disturbance in mould control
Cause: Monitoring the mould open position usually has an index 1 = clamp moog valve limited has been exceeded.
2 = the mould has opened further than 8mm passed S44
3 = The mould has creep forward (closing) by more than 8mm
Reaction: alarm stop cycle
Remedy: Check mould movement by moving open/ close by 3% and mould should just close/open also at 100% and mould should not bang. Put C239 = 2. Check pressure transducers on clamp. Check mould movement Moog valve. Check clamp cylinder nuts.

Alarm 2493
Injection cancelled due to mould stop
Cause: The mould did not lock over and if pre-injection was selected C1=3 then if T12 times out we can get this alarm
Reaction: cycle stop
Remedy: Check locking, Check by switching off C1=0

Alarm 2498
Monitoring of closing time during injection see T12
Cause: The machine is set up to inject before mould is locked by setting C1 = 3. The idea is to save reaction time and hence cycle time. The machine will start its injection phase at a position S1. When the mould gets to this position we monitor how long it takes before it is closed (locked) and display it with T22. We then set T12 just above it to monitor. If for some reason this time is exceeded we generate this alarm.
Reaction: cycle stops
Remedy: Check the times; check that mould movement is stable. Switch off C1 = 0

Alarm 2605
Central mould height adjustment defective
Cause: The mould height is not working correctly
Reaction: stops machine
Remedy: check that die height will move back and forward manually. Also check this in slow speed. (by setting C32 =2) Check proximity switch on large gear wheel on die height. Check die height motor. Check its not tripped out.

Alarm 2607
Clamp Force beyond limits
Cause: The clamp force F32 has to be between F34 and F35
Reaction: stops at end of cycle
Remedy: Check that C30 = 3 and clamp force is being read at F32. Check out clamp force system. Set C30 = 1 measuring only to keep machine running.

Alarm 2608
Error in clamp force measuring
Cause: Usually has an index 0 = clamp force regulation error
1 = clamp force reads 0 or 10 volts
2 = offset error
3 = clamp force peak value
5 = time out in central mould height adjustment
Reaction: stop at end of cycle
Remedy: Check for damage on clamp force sensors. Calibration required. Set C30 = 0 and remove plug from clamp force measuring box (SKM)

Alarm 4001
Connection interrupted between SYM and …..
Cause: The injection moulding computer has lost its connection with the other system
Reaction: Stop of cycle, alarm system On, motor Off
Remedy: The machine will have to be powered off and on again. Check voltages cables between the two systems and possibly the SPV print.

Alarm 4002
Interlock of safety cover is faulty:
Parameter: String of five characters, with 0 = pin is not in locking position
1 = pin is in locking position
safety cover front, safety cover rear, safety cover robot left, safety cover robot right, safety cover nozzle
Example: the string of characters „10111" means that the interlocking pin of the rear
safety cover does not interlock.
Cause: The position of at least one interlocking pin does not correspond to its nominal position
(interlocked: 1, unlocked 0)
Reaction: On interlocking:
Preparation of production is aborted
Mould movement is blocked
Mould movement is stopped
Remedy: Check the interlocks

Alarm 4003
Supply voltage failed
Cause: Mains supply not correct
Reaction: Machine will stop and boot down
Remedy: Check mains supply coming into machine

Alarm 4008
Disturbance in supply voltage ….
Cause: Usually has an index 1 = 24 volt fault
2 = monitoring of power supply
3 = safety relay K106
1xxx = e-stop or M24 fault before setting of hard-watchdog
2xxx = e-stop or M24 fault after setting of hard-watchdog
3xxx = e-stop or M24 fault after activation of e-stop
4xxx = e-stop or M24 fault after deactivation of e-stop

Reaction: Stop of cycle,
Remedy: The machine will have to be powered off and on again. Number 1 will probably be a short on a valve cable etc. Check voltages and possibly the SPV print for number 2. The others e-stop or other 24 volt problems. Need to check that e-stop breaks both channels.

Alarm 4011
Safety switch in maintenance position
Cause: Its possible just to isolate the hydraulic pump or heaters if they are not on by switch the switch on the electrical panel Q1002. With this isolated then you get alarm on screen
Reaction: Turns off pump stops machine in cycle
Remedy: If nobody is working on machine you can switch it back on but always check that nothing has been removed as this is a maintenance isolation switch for maintenance work.

Alarm 4035
Unlocking of safety cover is not possible reason ……..
Cause: The safety cover before it will release the doors to open it has to have messages from the drive to say they are all off. If this is not the case you can get this alarm
Reaction: Stop of cycle
Remedy: release of drives is missing so check drives, standstill missing from drives(this is detecting no movement of motors)

Alarm 4036
Partial actuation of PNOZ switch
Cause: one or more switches on the safety covers did not make their switches correctly
Reaction: alarm
Remedy: Check by opening and closing the faulty cover. Check switches on faulty door
S1002-04 rear door
S1005-07 front door

Alarm 4039
Accumulator charge is weak charging process is active
Cause: The machine has a battery back up so it switches down the control correctly under power failure. This battery is checked from time to time and charged if too low.
Reaction: alarm
Remedy: should cure itself by charging the battery

Alarm 4508
Watchdog failed
Cause: The machine has hard watchdog and soft watchdog. Hard watch dog monitors the voltages and if any fall out of tolerance the system will stop with an alarm. The same goes to the soft watchdog but this checks communication between computers
Reaction: machine will stop
Remedy: Check voltages

Alarm 9000
Flow supervision of mould cooling responded
Cause: The control detected that the cooling water supply to the mould is not guaranteed.
Reaction: Heaters Off Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Ensure that cooling water circulates. The flow sensor should have green LEDs all on.

Alarm 9001
Monitoring of the mould open position has responded
Cause: Monitoring of the mould open position (which is additional to the basic SynErgy control) has responded. During production the corresponding limit switch must be activated for as long as the mould is open. If this is not the case, the above alarm is output on the screen.
Reaction: Product removal is not released Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Adjust the limit switch, on the bed of machine, if necessary

Alarm 9002
Dry air shroud existing
Cause: External disturbance message 3 is active

Reaction: 8-minute alarm, alarm system On
Remedy: check dry air

Alarm 9003
Chillier; flow temperature is too high
Cause: External disturbance message 4 is active
Reaction: 8-minute alarm, alarm system On
Remedy: check chilled water

Alarm 9005
Disturbance in the robot control
Cause: Unexpected status of the robot depending on the machine's operating status:
During preparation for production the robot cannot be moved from the mould compartment or the robot cannot move to the reference position respectively. The robot is unable to move to the home position. Within 20s after a possible moving-in the removal gripper is still not ready or
emptied, respectively. Signal “Ejector to advance” not received within 20s after “Robot to move in”
The robot has not been able to terminate production faultlessly within 100s.
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Reference all robot positions.

Alarm 9006
C.P.I.-disturbance
Cause: Disturbance message from the factory data capturing system
Reaction: Stop at the of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: -> Factory data capturing system

Alarm 9008
Material slide is closed
Cause: The material slide is not open at “Start production”
Reaction: Production is not started, alarm system On
Remedy: Ensure that the material slide is open

Alarm 9010 (reference)
Dry cycle is active
Cause: The machine is in the “Dry cycle” mode
Reaction: Monitoring. Machine <-> robot

Alarm 9011
Change oil filter of electric circulation pump
Cause: The filter for extra oil filtration is blocked
Reaction: The filtration pump is switched off
Remedy: Exchange the corresponding filter

Alarm 9012
Temperatures not within band
Cause: This alarm is output if, at the start of preparation for production, the temperatures of the plasticizing unit, the mould block or the mould nozzles are not within the band.
Reaction: Preparation for production is aborted, automatic operation is not possible.
Remedy: The alarm is cleared with the next preparation for production provided that the corresponding temperatures are in good order.

Alarm 9013
Monitoring of the electric oil circulation pump has responded
Cause: Monitoring of the fine filtration pump has responded (bimetallic release or contactor, respectively).
Reaction: Pump is switched off, stop at end of cycle (when purged) 8-minute alarm, alarm system On
Remedy: Check pump has not tripped out and contactor is working.

Alarm 9015
Robot in inadmissible position
Cause: Alarm if dry cycle without robot was selected without the robot being actively in the hand-over range (at top).
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Check both limit switches which cover the hand-over range. (Servo drives must be switched on)

Alarm 9017
Exchange oil filter of circulation pump
Cause: The pressure filter of the circulation pump, running on the same shaft as the constant delivery pump, is blocked.
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Replace the filter

Alarm 9018
Collective alarm of heater auto. Fuses
Cause: Serial monitoring of all automatic fuses has responded.
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: check all fuses/ trips

Alarm 9019
Error in injection unit movement
Cause : The injection unit has not reached the target position within 45s.
Reaction: None
Remedy: Check the activation of the injection unit

Alarm 9020
Material booster disturbance
Cause: Booster is not ready at the start of preparation for production or booster reports disturbance during operation.
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: -> check material drier

Alarm 9021
Material drier disturbance
Cause: Material drier reports disturbance
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system on
Remedy: -> Material drier

Alarm 9022
Material booster temperature not in order
Cause: Booster temperature is not OK at the start of preparation for production or booster temperature is not OK during production.
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system on
Remedy: check temperature of booster

Alarm 9023
Material drier temperature not in order
Cause: Temperature of the material drier is not in order.
Reaction: Alarm system on
Remedy: -> drier

Alarm 9024
Temperature of plug-in slide not in order
Cause: Manual operation of the plug-in slide (slides that direct the plastic from the screw to shooting pot) is not permitted because the temperature required at the plug-in slide is not reached.
Reaction: The plug-in slide is not activated
Remedy Check temperature but also this is water cooled and this may need adjusting.

Alarm 9025
Emergency-off circuit defective
Cause: Message from “PNOZ” saying the emergency-off circuit is defective.
Reaction: Emergency-off (mushroom button) is deemed to be activated
Remedy: -> PNOZ, safety circuit

Alarm 9026
Safety cover circuit mould side defective
Cause: Message from “PNOZ” saying the safety cover circuit is defective.
Reaction: Safety cover is deemed to be open
Remedy: -> PNOZ, safety circuit

Alarm 9027
Safety cover circuit nozzle side defective
Cause: Message from “PNOZ” saying the nozzle cover circuit is defective.
Reaction: Nozzle cover is deemed to be open
Remedy: -> PNOZ, safety circuit checks nozzle cover.

Alarm 9029
Monitoring of the cooling water pump has responded
Cause: See alarm text
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On Cooling water pump is switched off
Remedy: Individual; ensure proper water supply, check flow governor if necessary

Alarm 9030
Check the oil filter of the circulating pump
Cause: Oil filter is heavily contaminated
Reaction: - alarm on screen
Remedy: Replace the filter of off line pump. (Not main pressure filter).

Alarm 9031
Monitoring of the flow monitor of the cooling water pump has responded
Cause: No or insufficient water flow to cooling water pump
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On Cooling water pump is switched off
Remedy: Ensure proper water through flow Check sensor in main water line. Should have green Leeds lit

Alarm 9033
Excessive transmission moment on the metering drive (status) (position)
Cause: Coupling balls for moment transmission on metering drive are disengaged B5065/B5066
Parameters: - Screw in question
- Operating condition
- Screw position at which the coupling balls disengaged
Reaction: Metering is stopped, purging sequence is stopped. Stop at end of cycle, cycle is blocked, 8-min. alarm, alarm system on
Elimination: The alarm can be acknowledged as soon as all coupling supervisions indicate that the coupling balls are engaged again. Check proximity switch and coupling. (Next to metering motor)

Alarm 9059
Error in servo axis control ……. BTB
Cause: This can be for any axis where the current of the motor has got to maximum
Reaction: stops machine
Remedy: Check end stops of faulty axis, check if axis will home, check drive alarms. Will have to power machine off/on

Alarm 9111
Fault in system pneumatics
Cause: The air pressure for the pneumatic drives is inadequate
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system on
Remedy: Ensure adequate supply of compressed air Check the pressure switch

Alarm 9112
Fault on external cooling air inlet (Better: Disturbance in external supply of cooling air)
Cause : The air pressure for air-blow cooling is inadequate
Reaction : Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Ensure adequate supply of compressed air or switch off air-blow cooling by squeezing-off the air supply

Alarm 9050
Removal basis is not in home position
Cause: In the home position movement (preparation for production) the robot basis (on which
The robot is mounted) could not be moved to the home position. (Removal [unit] basis and robot basis is the same thing).
Reaction: The movement to the home position is aborted
Remedy: Move the removal basis to the production position

Alarm 9051
Removal basis is not in production position
Cause: The robot basis is not in production position (The current operating mode corresponds to the manual mode)
Reaction: Vertical axis movement is blocked
Remedy: Move the removal basis to the production position

Alarm 9052
Removal travel conditions are not met
Cause: Not all conditions for the robot movement are met. Conditions for robot travel (identical for moving in and out):

- The mould is open (incl. additional limit switch)
- Mould ejector is in rear position
- The robot basis is in production position
- The follow-up station does not block the removal axis, i.e. the transfer swivel unit is either in hand-over position (horizontal) or it is in take-over position and the transfer return stroke is completed.

Reaction: The axis is blocked
Remedy: Check the above

Alarm 9053
Error in removal reference travel
Cause: The removal axis could not terminate the reference movement correctly.
Reaction: The axis is blocked
Remedy: Check the reference limit switch, coupling and top mechanical stop

Alarm 9054
Removal follow-up station cannot be moved to home position
Cause: The station (after cooling unit) following removal (vertical axis and gripper) could not be moved to the home position.
Reaction: Abortion of the movement to the home position
Remedy: See alarms on the screen displayed on the basis of an error in the follow-up station (if appropriate investigate the problem optically).

Alarm 9055
Removal unit gripper is not empty
Cause: There is at least one preform still left in the removal gripper, detected by one of the photoelectric cells which are also used to count the preforms.
Reaction: Removal axis moves from the take-over position to the hand-over position again
(Without taking over the preforms), i.e. the preforms located on the cores can be ejected.
Remedy: Remove preforms from the removal gripper. Restart the cycle. Check and record which perform it is if repeated then check Calitec rubbers / alignment

Alarm 9056
Time supervision of removal travel movement responded,
Cause: The movement of the removal gripper took to long.
Reaction: Automatic:
Removal gripper is stopped, the automatic cycle is interrupted
Home-position movement:
Home-position movement is regarded as unsuccessful
Remedy: Check the removal axis (servo drive, power supply, coupling, mech. blockage, etc.)

Alarm 9057
Removal gripper is not in hand-over position
Cause: According to the resolver the robot is in the hand-over position, but the corresponding limit switch is not activated.
Reaction: Robot is deemed „not in hand-over position“
Remedy: For movement to mould change position, move the robot to the hand-over position, check limit switch or the programmed hand-over position (S9006). Check the limit switch setting which checks the hand-over position.

Alarm 9058
Servo axis control of removal unit is not initialized
Cause: The servo drives (master and slave) are not yet initialized or could not be initialized.
Reaction: No travelling movements of the removal axis are possible
Remedy: Close the safety cover (incl. acknowledgment) Check the CAN connection between HCU and servo drives

Alarm 9059
Error in servo axis control of removal unit
Cause: Servo drive (master or slave) reports error. This is displayed as extra information.
If no extra information is displayed with the alarm, the corresponding circuit breaker has
fallen off. If the BTB contact has fallen off, the extra information „BTB“ on the alarm is output
Reaction: Depending on the error (from reference to interlocking of the removal axis)
Remedy: Individual according to error

Alarm 9060
Removal gripper cannot be moved to the reference position
Cause: The reference movement of the removal axis could not be carried out successfully.
Reaction: No travelling movement is possible
Remedy: Check the wiring of the reference limit switch on the master servo drive of the removal axis. Check the top mechanical end stop of the removal axis

Alarm 9061
Mould blocks removal unit gripper
Cause: Travel command to the removal unit gripper although the mould-open limit switch is not activated or the mould is not open according to the stroke measuring system.
Reaction: Travelling command is not executed
Remedy: Move the mould open Check the mould-open limit switch if appropriate

Alarm 9062
Ejector blocks removal unit gripper
Cause: The removal unit gripper is blocked because the ejector has not returned.
Reaction: Travelling command is not executed
Remedy: Return the ejector check switches on mould and check to see if ejector led is on the status page

Alarm 9064
Supervision of removal vacuum pump has responded
Cause: See alarm text
Reaction: Pump is switched off
Remedy Check pump has not tripped out. Pump has to be switched on again to reset alarm

Alarm 9065
Removal unit is not in home position
Cause: See alarm text
Reaction: The function is blocked
Remedy: Eliminate the malfunction which prevents the removal unit from being moved to the home position.

Alarm 9066
Error on approaching removal unit home position
Cause: See alarm text
Reaction: Home position not OK
Remedy: Eliminate the malfunction which prevents the removal unit from being moved to the home position.

Alarm 9067
Inadmissible mould movement
Cause: The mould has moved away from the limit switch “Mould open” although it was not released (but in fact blocked by the robot).
Reaction: Fatal error, robot blocked:
Remedy: While pressing the recovery key, press the Stop key. This means that the diagnosis data are compiled. After they are established (corresponding status message on the screen disappears) create the diagnosis floppies and send them to Netstal. Check switches on bed of machine and S103. Check mould open position is getting there correctly and smoothly
Switch the machine off and on again

Alarm 9068
Inadmissible order to the removal unit control
Cause: See alarm text
Reaction: -
Remedy: -

Alarm 9069
Inadmissible withdrawal of removal unit release
Cause: Release has been withdrawn from the removal unit (robot) in an inadmissible manner.
Reaction: The robot is blocked
Remedy: While pressing the recovery key, press the Stop key. This means that the diagnosis data are compiled. After they are established (corresponding status message on the screen disappears) create the diagnosis floppies and send them to Netstal
Switch the machine off an on again

Alarm 9070
Follow-up station blocks removal gripper
Cause: The transfer swivel unit is in take-over position and the return transfer stroke has not been made.
Reaction: The removal gripper is blocked
Remedy: Carry out the return transfer stroke

Alarm 9071
Mould has not been emptied completely
Cause: While production was in progress, it was impossible to build up the vacuum at the removal gripper during the movement to the hand-over position. With activated preform counting: After moving out, there were not as many preforms in the removal gripper as specified in parameter C9001.
Index: Number of missing performs If the value 0 is shown here, it was impossible to build up a vacuum
Reaction: The mould does not close, production is stopped
Remedy: Possible causes
- At least one preform, perhaps more, could not be taken over
- Untightness somewhere in the removal gripper's vacuum system
Check air pressure, alignment, check with base setting sheet

Alarm 9072
Error on handing over parts to follow-up station
Cause: The follow-up station did not take the preforms over from the removal gripper within 10s.
Reaction: Production is stopped
Remedy: Individual depending on the problem on hand

Alarm 9080
Inadmissible order to the after-cooling station
Cause: See alarm text
Reaction: -
Remedy: -

Alarm 9081
Lengthwise shifting of the cooling block is blocked
Cause: The following condition is not met: Transfer swivel unit is in hand-over position (horizontal position) and the return transfer stroke is completed
Reaction: The cooling block is blocked
Remedy: See cause

Alarm 9082
Transfer stroke is blocked
Cause: The following conditions (on advancing) are not met:
- Transfer swivel unit is in take-over position (vertical position) and the removal axis is in hand-over position
- Transfer swivel unit is in hand-over position (horizontal position) and the cooling block is in take-over position
- transfer swivel unit is in hand-over position (horizontal position) and the cooling block is in hand-over position

Observed sources of errors:
- Limit switch B5053 (collision cooling block lengthwise) is actuated when it mustn't be

Reaction: Transfer stroke is blocked
Remedy: See cause

Alarm 9083
Transfer swivel unit is blocked
Cause: The following condition is not met:
- Return transfer stroke is completed and cooling block is in hand-over position.

Reaction: The movement is blocked:
Remedy: See cause

Alarm 9084
Sidewise shifting of the cooling block is blocked
Cause: The following condition is not met:
- Return transfer stroke is not completed
Reaction: The movement is blocked
Remedy: See cause

Alarm 9085
After-cooling station is not in home position
Cause: For the selected action the home position (preparation for production) must have been moved to at least once.
Remedy home

Alarm 9086
Error on sidewise shifting of the cooling block
Cause: On sidewise shifting of the cooling block (position A, B, C or D) the end position was not reached.
Reaction: -
Remedy: Ensure that compressed air exists, Check the sensors which detect the end positions
Make sure there are no mechanical blockages Check the programmed travelling speed

Alarm 9087
Time supervision of cooling block travel movement responded,
Cause: The cooling block's movement lasted too long.
Reaction: Automatic: - cooling block is stopped, automatic cycle is interrupted Home-position movement: - home-position movement is deemed to be unsuccessful
Remedy: Check the cooling block axis (servo drive, power supply, coupling, mech. blockage, etc.)

Alarm 9088
Cooling block is not in handing-over position
Cause: According to the resolver the cooling block is in hand-over position, but the corresponding limit switch is not activated.
Reaction: The cooling block is deemed to be „not in hand-over position“
Remedy: Check the limit switch and the programmed hand-over position

Alarm 9089
Servo axis control of cooling block is not initialized
Cause: The servo drive for the cooling block axis is not yet initialized or could not be initialized, respectively.
Reaction: A travelling movement of the cooling block axis is not possible
Remedy: Close the safety cover (incl. acknowledgment) Check the CAN connection between HCU and servo drives

Alarm 9090
Error in servo axis control of the cooling block
Cause: Servo drive reports error, see extra information on alarm text (in the case of the extra information 8192 a following [drag] error is concerned [actual value is unable to follow the set value])
Reaction: Depending on the error (from reference to interlocking of the cooling block axis)
Remedy: Individual, depending on the error

Alarm 9091
Cooling block cannot be moved to reference position
Cause: Reference movement of the cooling block axis could not be executed successfully.
Reaction: No travelling movements of the cooling block are possible
Remedy: Check the wiring of the reference limit switch onto the servo drive of the cooling block axis. Check the mech. end stop of the cooling block axis on the hand-over side

Alarm 9093
Cooling block is already charged, row
Cause: The stated row of the cooling block is already charged with preforms (vacuum existing).
On throwing-off of the preforms it was detected that at least one preform of the current row is still in the cooling block.
Reaction: The advance transfer stroke is blocked if it is in the hand-over position (horizontal position).
Remedy check sensor are positioned correctly, check vacuum, check that perform is not distorted and therefore sticking in cooling block. Can up pressures on Calitec

Alarm 9094
Supervision of conveyor belt has responded
Cause: See alarm text
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: Check the activation of the conveyor belts (incl. monitoring of power uptake)
Make sure there is no mechanical blockage anywhere

Alarm 9095
Supervision of vacuum/pressure pump of after-cooling station responded
Cause: See alarm text
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system On
Remedy: check the activation of the vacuum pump

Alarm 9096
Supervision of vacuum pump of after-cooling station responded
Cause: See alarm text
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system on
Remedy: check the activation of the vacuum pump

Alarm 9097
Transfer swivel unit is in undefined position
Cause: For the advance or return transfer stroke the transfer swivel unit must be in hand-over or take-over position. In the present case, however, it is in neither of these positions.
Reaction: The transfer stroke is blocked
Remedy: Move the transfer swivel unit to a defined position (hand-over or take-over position)

Alarm 9098
Vacuum loss in vacuum supply of cooling block
Cause: See alarm text
Reaction: Stop at end of cycle, cycle is blocked, 8-minute alarm, alarm system on
Remedy: Ensure that no untightnesses exist anywhere

Alarm 9099
Supervision of motor for lengthwise movement of cooling block responded
Cause: See alarm text
Reaction: The drive for the lengthwise movement is stopped
Remedy: Check the lengthwise movement for mechanical blockages
Check monitoring of power uptake

Alarm 9109
Cooling block offset is faulty
Cause: Program of cooling block not correct
Reaction: can’t go to auto
Remedy: Check settings, check cooling block positions and C9005 and C9007

Alarm 9113
Axis control for transfer stroke is not initialized
Cause: The servo drive for the transfer stroke is not yet initialized or could not be initialized, respectively.
Reaction: No travelling movements of the transfer stroke are possible.
Remedy: Check the CAN connection between HCU and servo drives

Alarm 9114
Error in axis control for transfer stroke
Cause: Servo drive reports error; see extra information on alarm text
(in the case of the extra information 8192 a following [drag] error is concerned [actual value is unable to follow the set value])
Reaction: Depending on the error (from reference to interlocking of the transfer stroke)
Remedy: Individual depending on the error Check the power supply

Alarm 9115
Transfer stroke cannot be referenced
Cause: The reference movement of the transfer stroke axis could not be executed successfully.
Reaction: No travelling movements of the transfer stroke are possible.
Remedy: Check the wiring of the reference limit switch to the servo drive of the transfer stroke.
Check the mechanical end stop

Alarm 9116
Axis control for transfer pivoting is not initialized
Cause: The servo drive for transfer swivelling is not yet initialized or could not be initialized, respectively.
Reaction: No travelling movements of the transfer swivelling unit are possible
Remedy: Check the CAN connection between HCU and servo drives

Alarm 9117
Error in axis control for transfer pivoting
Cause: Servo drive reports error, see extra information on alarm text (in the case of the extra information 8192 a following [drag] error is concerned [actual value is unable to follow the set value])
Reaction: Depending on the error (from reference to interlocking of the transfer swivel unit)
Remedy: Individual depending on the error Check the power supply reference, check end stops

Alarm 9118
Transfer pivoting cannot be referenced
Cause: The reference movement of the transfer swivel axis could not be executed successfully.
Reaction: No travelling movements of the transfer swivelling unit are possible
Remedy: Check the wiring of the reference limit switch to the servo drive of the transfer swivel unit. Check the mechanical end stop

Alarm 9119
Axis control for cooling block side movement is not initialized
Cause: The servo drive for the cooling block side movement axis is not yet initialized or could not be initialized, respectively.
Reaction: No travelling movement of the cooling block side movement is possible
Remedy: Check the CAN connection between HCU and servo drives

Alarm 9120
Error in axis control for cooling block side movement
Cause: Servo drive reports error, see extra information on alarm text (in the case of the extra information 8192 a following [drag] error is concerned [actual value is unable to follow the set value])
Reaction: Depending on the error (from reference to interlocking of the side movement)
Remedy: Individual depending on the error Check the power supply reference, check end stops

Alarm 9121
Cooling block side movement cannot be referenced
Cause: The reference movement of the cooling block side movement axis could not be executed successfully.
Reaction: No travelling movements of the cooling block side movement are possible
Remedy: Check the wiring of the reference limit switch to the servo drive of the cooling block side movement. Check the mechanical end stop

Alarm 9122
Cooling block could not be emptied
Cause: The cooling block could not completely throw off the preforms of the selected row.
In the fully automatic cycle the production is stopped after three unsuccessful attempts
at throwing off.
Reactions: Production is stopped
Remedy: Individual Increase the blow-off air Check the installation of the photoelectric cells monitoring the throw-off

Alarm 9124
Error in axis control for longintunal movement
Cause: Servo drive reports error, see extra information on alarm text (in the case of the extra information 8192 a following [drag] error is concerned [actual value is unable to follow the set value])
Reaction: Depending on the error (from reference to interlocking of the side movement)
Remedy: Individual depending on the error Check the power supply reference, check end stops

Alarm 9129
Error in axis control for stroke movement of cooling block
Cause: Servo drive reports error, see extra information on alarm text (in the case of the extra information 8192 a following [drag] error is concerned [actual value is unable to follow the set value])
Reaction: Depending on the error (from reference to interlocking of the side movement)
Remedy: Individual depending on the error Check the power supply, reference, check end stops

Alarm 0003 BB1
Control panel communication problems error Kbox
Cause: Lost CAN communication so Kbox (main panel where you press keys) has lost even if it is for a short time CAN communication
Reaction: machine stops
Remedy: Possibly EMC errors, check earthling cable glands to motors

Alarm 0011 BB1
Disturbance in card slot 17 error AD 528
Cause: An error occurred in card slot 17 in electrical panel (this case AIO) with an analogy to digital conversion. 528 is a decimal number and must be converted to Hexadecimal to trace error. Not important to trace actual input by this number due to it being quite complicated to find.
Reaction: Stops machine
Remedy: Check all analogy signals going into this card. This case it’s a vacuum switch

NOTES