

PLANER

Kryo 1060-380: Operation Qualification

Checklist from template QT0009 revision 1

This document summarises the qualification checks that should be undertaken on a Kryo 1060-380 series system to ensure that the installation is operating correctly.

Chamber Serial Number	
Controller Serial Number	
Installation ID	
Date of Qualification	
Qualified By	
Perform full system test on the Controller. This can be achieved by using the CFGPID.exe application and selecting Test. Refer to Service Information Sheet, SI-SBUR-57LBSD - CFGPID APPLICATION FOR SETTING THE PID ENGINE COEFFICIENTS. NB. The controller used for the 1060-380 is a Kryosave Controller and as such the instructions should be followed using the commands for the Kryosave Controller.	<input type="radio"/> Pass <input type="radio"/> Fail <input type="radio"/> NA
Attach full system printout attached to this record.	<input type="radio"/> Pass <input type="radio"/> Fail <input type="radio"/> NA
Enter QA program (see Notes below) using DeltaT and run.	<input type="radio"/> Pass <input type="radio"/> Fail <input type="radio"/> NA
On QA run, confirm that the maximum error between the profile and chamber trace at the end of the 5 C hold is less than 2 C.	<input type="radio"/> Pass <input type="radio"/> Fail <input type="radio"/> NA
On QA run confirm that maximum oscillation on a ramp is less than 2.5 C and damping occurs within 5 minutes. This is measured after the effects of the rate change have subsided. The final ramp (+10 C / minute to + 20 C) is ignored.	<input type="radio"/> Pass <input type="radio"/> Fail <input type="radio"/> NA
On QA run, confirm that the trace is free of regular oscillations that do not damp within two minutes. This is measured after the effects of the rate change have subsided. The final ramp (+10 C / minute to + 20 C) is ignored.	<input type="radio"/> Pass <input type="radio"/> Fail <input type="radio"/> NA
Attach DeltaT printout to this record.	<input type="radio"/> Pass <input type="radio"/> Fail <input type="radio"/> NA

If this form is not being entered directly into the Planer plc Product Qualification Record database, please fax back a copy of all records, including this sheet to the Planer Service Department on +44 (0) 1932 755001

Notes:

QA Profile:

- Start at 5 C
- Hold 5 minutes
- 1 C / minute to -50
- 5 C / minute to -100 C
- +2 C / minute to -70 C
- +10 C / minute to +20 C (this part of the profile exceeds the performance specification of the freezer and as such is not included in the performance assessment.)

Operation Qualification completed by: _____ / /

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