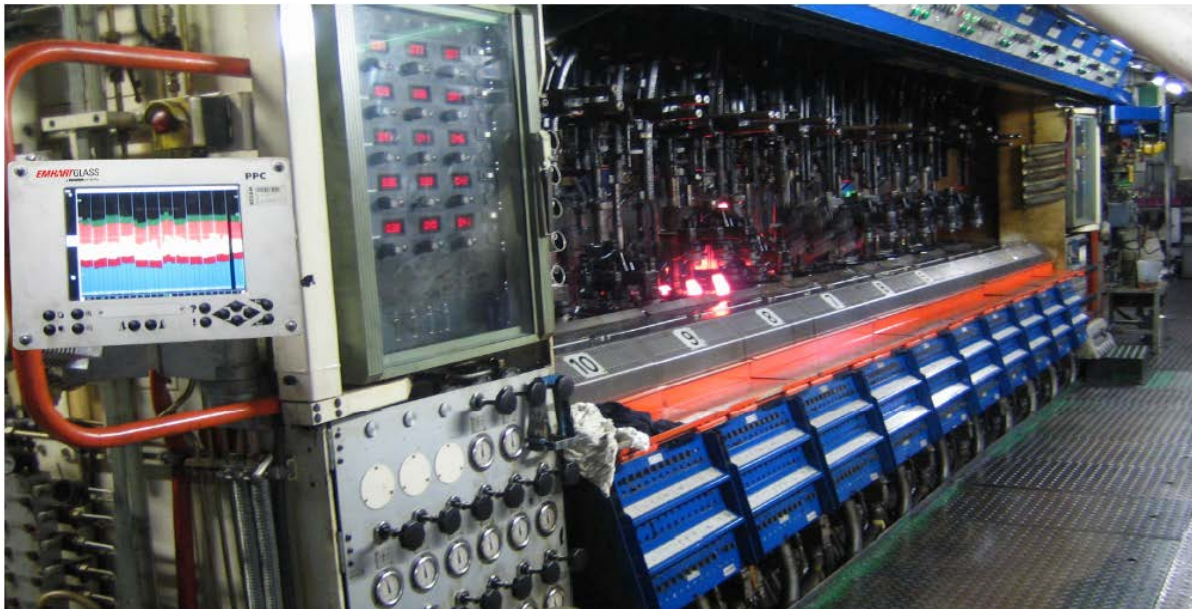


Technical News Bulletin

Steinhausen, October 2019



Plunger Process Control Software version 1.95F

- Increased accuracy
- Embedded calculation
- Basic calibration both full and limited

Introduction

There is continuous work to the software of the Plunger Process Control system. Recently, two major enhancements were made to provide increased accuracy of the end position measurement

Temperature compensation

To be able to compensate for thermal expansion, the PPC has an embedded calculation that is based on the heat load of the mechanism. For a given position, the frequency of a sensor depends on the temperature of the adapter plate (AP). The system estimates the AP temperature and compensates the resulting difference of the frequency. It was found that the compensation used in this calculation could be fine-tuned for all adapter plates but also selectable to differentiate between the different heat loads on the pneumatic IS/AIS machines and the servo electric NIS.

As of software version 1.95 it is possible to select a suitable temperature correction under the “Basic Setup” screen and under the parameter “Adapter plate”.



Please be aware that when the software is installed, you must select the correct adapter plates! Selecting “n.a.” means that the former temperature correction is used, this is not recommended! Select either “AIS/BIS/IS” or “NIS”.

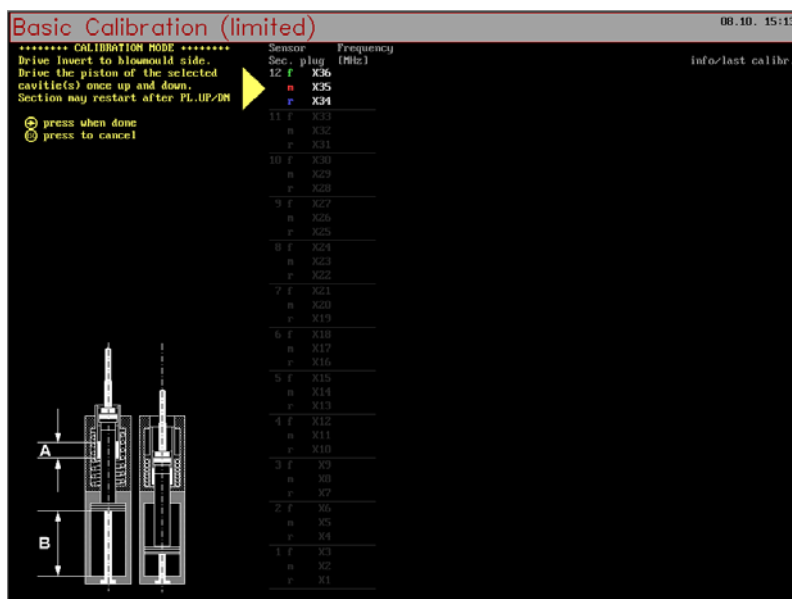
Sensor calibration

Three different calibration procedures are available in the software. However, experience has shown that the Basic (Full stroke) and Basic (Limited stroke) are the best practices to apply.

Basic calibration (Full): Must be used when the mechanism is installed in the section and any time when there is an opportunity to move the full stroke of the piston.

Basic calibration (Limited): Must be used when the positioner is installed and a re-calibration is required on the running machine. Limited stroke requires that the spacer used in the positioner is known and the neckring is removed from the blankside, so that the mechanical upper limit of the plunger mechanism can be reached. Basic calibration (Limited) must be used instead of the *Fine tune* calibration.

To ensure that the best practices are used there are some enhancements to the step-by-step procedure for the Basic (limited stroke).



Availability / Application

Bucher Emhart Glass recommends updating the PPC software to the latest version. The software version 1.95F can be downloaded from the Bucher Emhart Glass website using the link below.

http://www.bucheremhartglass.com/files/PPC1.95f_2019-10-10.zip

Installation Procedure

1. Power off the system and remove the program card (right-hand slot).
2. Use a memory card reader and copy/replace all the files included in the zip to the program card.
3. Put the program card back into the right-hand slot and power up the system.
4. Select the appropriate type of adapter plate in the Basic Setup (see above).
5. Re-calibrate all mechanisms once the software has been exchanged using the Basic calibration (Full).
6. Use the Basic calibration (Limited) to re-calibrate when the machine is in steady production.

For technical support please contact your local Bucher Emhart Glass representative or our regional service management in Savona, IT, St. Petersburg, FL/US and Johor Bahru, Malaysia.