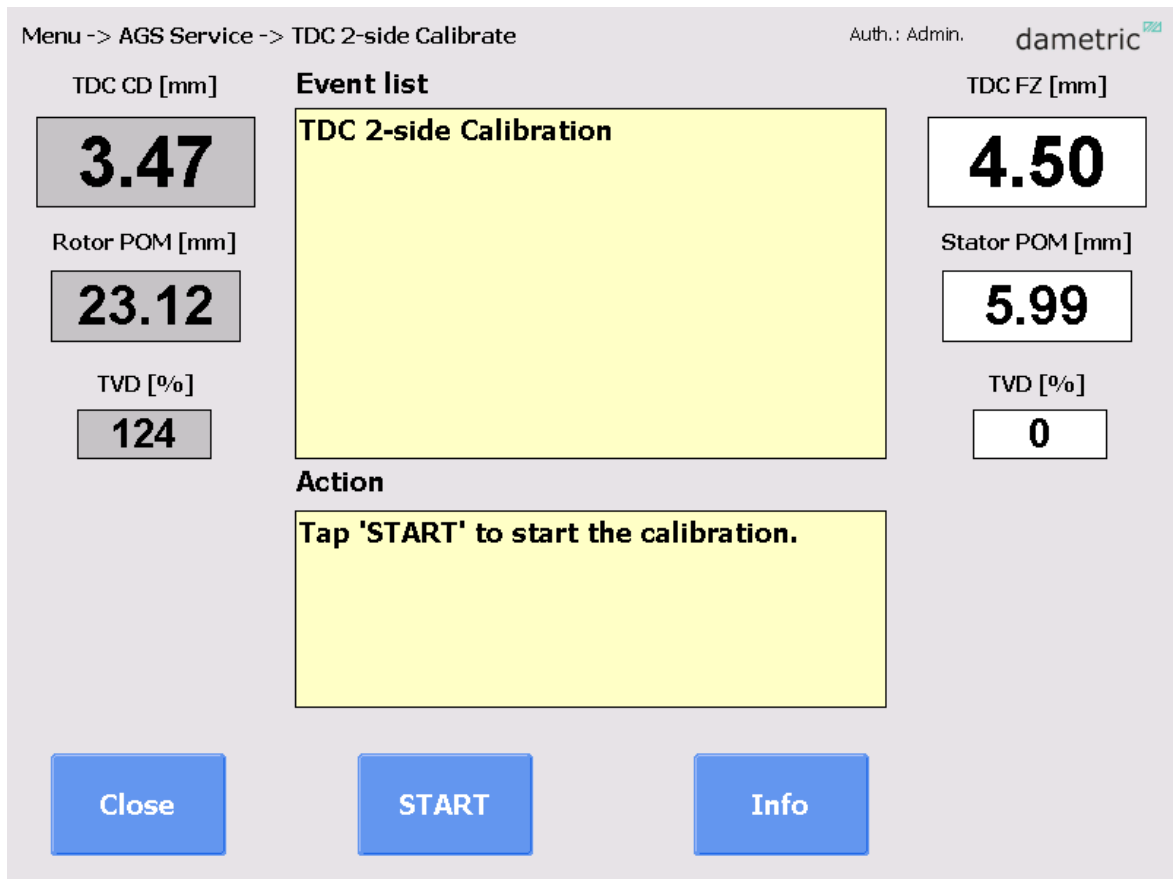




AGS TDC Calibration



GMS CE Panel-PC

Calibration Manual

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1 Overview

This manual describes the process of calibrating the measuring tip of an AGS Sensor by the old method of running the rotor plates in contact with the stator plates. This mode is an emergency way of calibrating if the tip of the sensor for any reason cannot be moved.

The user changes the sensor type from “AGS-XXX” to “TDC sensor” which will change the calibration form. The new form reminds of the standard RMS display and will give the operator the aid of reading and calculating the relative movement of the rotor.

The user also has to change the zero/span calibrating parameters of the DCA unit from normally 0.10/1.10 mm for the AGS sensor to 0.50/1.50 mm for the TDC sensor.

This is a manual mode so the operator must run the rotor packages in and out to first take the touch, then back off for the zero point and then to back off further to take the span point.

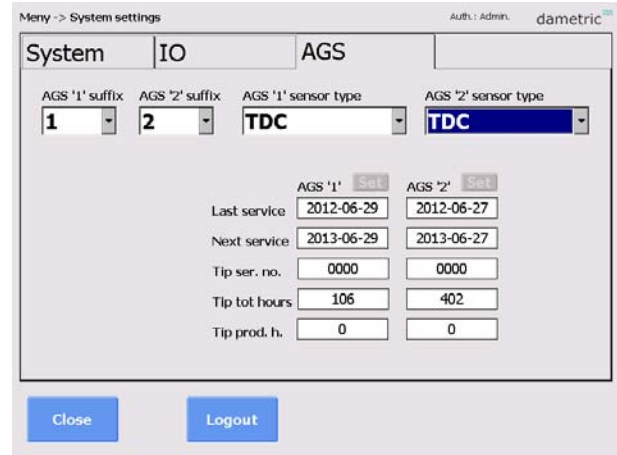
The refiner interlocking must be released which is done by a key-switch.

The necessary buttons for the calibration are presented on the Panel-PC while the movement of the rotor is executed by switches on the refiner panel.

Note. In contrast to an AGS calibration, the TDC calibration cannot be done during production.

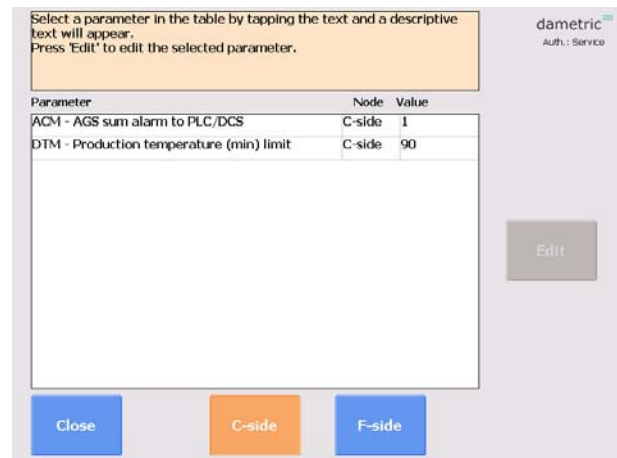
2 Select TDC sensor type

Log in as administrator and tap the System Settings button on the Menu form. Then select the AGS tab and tap on the AGS sensor type. Select the “TDC Sensor” alternative. You must select side if you are operating a RGP CD-refiner. Each sensor has its individual setting. Close the system settings form. Remember to set this parameter back when the problem with the AGS sensor has been fixed.



3 Disable DCU sum alarm

Do the following to disable that an AGS alarm trips the refiner thru the ACM-RM1 unit: Login with the service code and push the parameter button in the DTM service form (Menu – Service - DTM – Parameter). Change the “ACM – AGS sum alarm to PLC/DCS” from a “1” to a “0”.



4 Calibration parameters

Note that the calibration parameters have to be changed along with the calibration method.

For an AGS calibration the parameters are typical: zero = 0.00, span = 1.00, idle offset = 0.10, while for a TDC calibration it is: zero = 0.50mm, span = 1.50 mm.

Note also the TVD calibration limits. The limit is stored in the AGS house at AGS calibration while the TVD limit parameter in the DCU is valid at a TDC calibration.

Remember to also change the parameters when changing calibration method.

5 Coarse calibration

A new sensor has to be coarse calibrated before it is calibrated in an idle refiner. Move the plates wide apart (> 8mm) and press the Coarse Calibrate button in the AGS Service form. Note that the coarse calibration can be interlocked by a minimum rotor or stator position. If so, this information is presented to the operator.

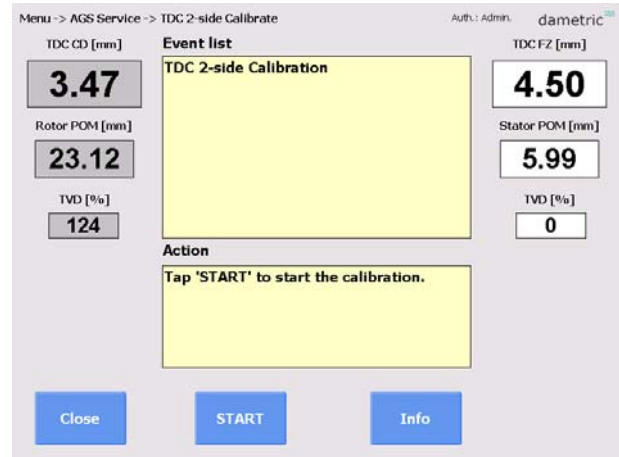
6 Open the calibration form

Open the calibration form by login as an operator and then click on the AGS Service form from the menu form.

The calibration buttons now indicates ‘TDC Calibrate’ because we will calibrate the sensor in the “TDC way”.

Press the ‘TDC Calibrate’ button. Select side for a CD refiner, CD-zone or Flat zone.

The ‘TDC Calibrate’ button is only enabled if the corresponding ‘Touch Position’ switch on the panel is activated.



7 TDC Calibration form

The selected side in a CD refiner has white text boxes while the passive side has text boxes in gray. The passive side is presented to the operator to avoid unwanted plate clash of this side.

Event list

The event list window will present the events that have happened during the calibration.

Action

The action window will present which action the operator should do.

Rel.Gap

This text box will pop up when the touch point is detected and will be preset to -0.10mm. The operator must then quickly back the plates off to a 0.00 reading. It is automatically compensated for the gap to rotor position ratio according to the setting in the DCU unit.

Run/Cal

This button will have alternate text depending on where in the procedure we are. It will read ‘Zero’ when to zero calibrate and ‘Span’ when to calibrate the span.

Force TVD

The button is an escape way to manually force a touch point.

Info/Info off

This button will alternate between the calibration parameters and the event list in the event list window.

Zero and span parameters

The parameters are set by parameters in the DCA-RM1 unit. These are reached by the ‘Parameter’ button in the AGS Service Form and when the TDC Sensor type is set as ‘AGS Eject’.

TVD limit parameter

The TVD parameter to determine the touch point is set in the DCU unit under DCA Cal. Settings.

The procedure will be stopped and the form closes automatically if the ‘Touch Position’ switch on the panel is deactivated.



8 TDC calibration sequence

8.1 Coarse Calibrate

Be sure to do the coarse calibration if you have changed the tip. The TDC reading will be set to 3.80 mm upon execution.

8.2 Touch point

The operator moves the rotor (or stator) until the plate's touches and the touch point is reached.

8.3 Zero calibration

The operator moves the plates until the Rel.Gap indicates 0.00 (± 0.02) mm.

Press the 'Zero' button to calibrate the TDC according to the zero parameter setting (normally 0.50mm).

8.4 Span calibration

Move the plates apart until the Rel.Gap indicates 1.00 (± 0.02) mm.

The 'Span' button will be shown as soon as the Rel.POM is higher than 0.80 mm.

Press the 'Span' button to calibrate the TDC according to the span parameter setting (normally 1.50mm).

8.5 Finish calibration

Press the 'Finish' button on the PanelPC.

Set the 'Touch Position' key switch to the off position and then press the 'Set' button on the refiner panel to turn the 'Not Calibrated' lamp off.

9 Contact

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