



STI Vibration Monitoring Inc.

STI Vibration Monitoring Inc.
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Proximity Probe Calibration Curve

Range in Mils	Voltage	Deviation from a Straight Line (-0.2 to 0.2)	5% of 200 mV/mil (0.95 to 1.05)
0	2.00	-1.00	NA
5	2.00	0.00	0.00
10	3.00	0.00	1.00
15	4.00	0.00	1.00
20	5.00	0.00	1.00
25	6.00	0.00	1.00
30	7.00	0.00	1.00
35	8.00	0.00	1.00
40	9.00	0.00	1.00
45	10.00	0.00	1.00
50	11.00	0.00	1.00
55	12.00	0.00	1.00
60	13.00	0.00	1.00
65	14.00	0.00	1.00
70	15.00	0.00	1.00
75	16.00	0.00	1.00
80	17.00	0.00	1.00
85	18.00	0.00	1.00
90	19.00	0.00	1.00
95	20.00	0.00	1.00
100	21.00	0.00	1.00
105	22.00	0.00	1.00
110	23.00	0.00	1.00

Sensitivity: 200 mV/mil

Calibration per API 670, Third Edition, Section 2

Installed Location: _____

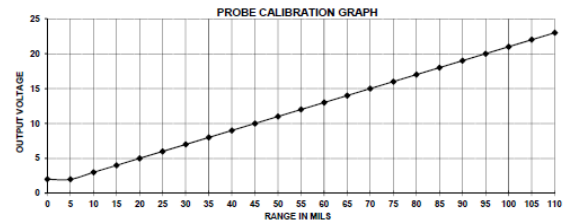
Proximity Probe: _____
Model No.: _____
Serial No.: _____
Length: _____

Extension Cable: _____
Model No.: _____
Serial No.: _____
Length: _____

Driver: _____
Model No.: _____
Serial No.: _____
Length: _____

Resistance: _____
Probe Alone: _____
Probe & Cable: _____

Power Source: _____
Supply Voltage: _____
Open Voltage: _____



Calibrated By: _____ Calibrator Model No.: _____
Date Calibrated: _____ Calibrator Serial No.: _____
Signature: _____

This Calibration Report was Generated using STI Vibration Monitoring's Proximity Probe Calibration Reporting Tool Available for Download at <https://www.stiweb.com/v/vspfiles/downloadables/ProxCaTTool.xls>



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CMCP-TKPC Pocket Calibrator For Static Probe Calibration

User's Guide

Release: January 2020



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Calibration

The CMCP-TKPC features a Starrett 463P Micrometer Head and is the only part of the calibrator that can be regularly calibrated. The micrometer head can be returned to STI for calibration or it can be sent to a local tool calibration company. The micrometer has been factory calibrated by Starrett prior to being shipped.

QuickClick Adjustment

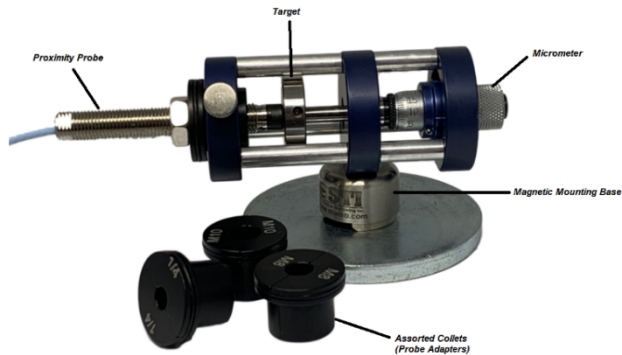
The QuickClick features a ball and plunger which indexes with the notches in the shaft adapter. The QuickClick tension can be set by adjusting the screw on the back on the calibrator. When fully loosened, the micrometer will free spin, allowing for 0.001" (English) or 0.01mm (Metric) graduations.



Introduction

The CMCP-TKPC QuickClick Pocket Calibrator provides a convenient and precise method of verifying the voltage output vs. physical gap of a Proximity Probe system. Designed for use in the field or shop environment, the CMCP-TKPC will work with any manufacturer's 5mm and 8mm probes and is supplied with probe holders to accommodate 1/4-28, 3/8-24, M8 and M10 thread sizes. STI's patented QuickClick micrometer allows the user to easily adjust the micrometer in 0.005" (English option) or 0.1mm (Metric option) increments quickly and reliably, improving the overall time it takes to complete a report and with greater precision. A free downloadable Proximity Probe Field Calibration reporting tool is available on the STI website which allows the user to generate a Calibration Certificate in Microsoft Excel format.

Layout



Specifications

Target Material: 4140 Steel (Unless Otherwise Requested)

Target Diameter: 0.938" (24mm)

Micrometer Range:

English: 0 to 0.50"

Metric: 0 to 13mm

QuickClick Graduations:

English: 0.005"

Metric: 0.1mm

Micrometer Graduations:

English: 0.001"

Metric: 0.01mm

What's Included

1x Pocket Calibrator with QuickClick Adapter

4x Various Size Collets

1x Magnetic Base

1x Steel Washer

1x Travel Case

Downloaded Calibration Reporting Tool

<https://www.stiweb.com/v/vspfiles/downloadables/ProxCalTool.xls>



Instructions:

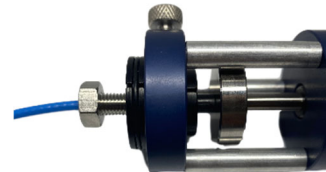
1. Zero micrometer by aligning the notches together at the 0 mark.



2. Insert the Proximity Probe into the correct size Collet. Collets are provided for 1/4", 3/8", M8 and M10 Probes.



3. Insert Collet into the calibrator, making sure to press the tip of the probe against the target, then tighten the thumbscrew to secure the collet.



4. Rotate the micrometer in 0.005" (English) increments using the patented QuickClick adapter. The adapter is indexed allowing for quick and repeatable adjustments.



5. Record the DC voltage output from the proximity probe with a Digital RMS Voltmeter and record enter the data into the Probe Calibration Curve Generator provided with the calibrator in Microsoft Excel format (see graph on next page).
6. Repeat the measurement until the voltage output from the proximity probe driver stops.
7. The probe sensitivity will be displayed at the bottom of the chart.
8. Additional information can be entered into the report such as part numbers, serial numbers, power supply voltage, date of calibration and installed location.