



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: \_\_\_\_\_

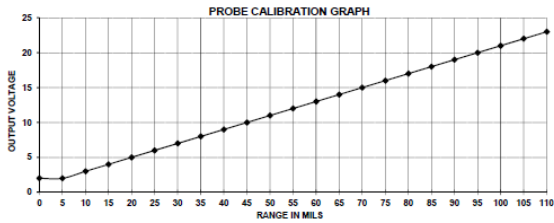
Proximity Probe:  
Model No.: \_\_\_\_\_  
Serial No.: \_\_\_\_\_  
Length: \_\_\_\_\_

Extension Cable:  
Model No.: \_\_\_\_\_  
Serial No.: \_\_\_\_\_  
Length: \_\_\_\_\_

Driver:  
Model No.: \_\_\_\_\_  
Serial No.: \_\_\_\_\_  
Length: \_\_\_\_\_

Resistance:  
Probe Alone: \_\_\_\_\_  
Probe & Cable: \_\_\_\_\_

Power Source:  
Supply Voltage: \_\_\_\_\_  
Open Voltage: \_\_\_\_\_



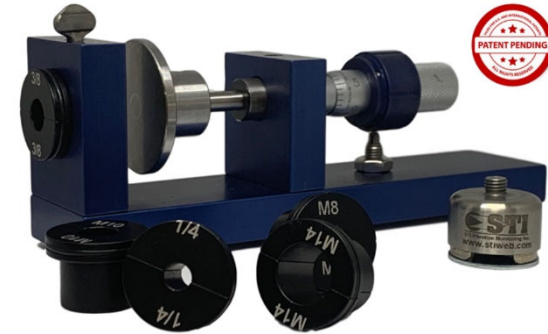
Calibrated By: \_\_\_\_\_ Calibrator Model No.: \_\_\_\_\_  
Date Calibrated: \_\_\_\_\_ Calibrator Serial No.: \_\_\_\_\_  
Signature: \_\_\_\_\_

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/ProxCalTool.xls>



## CMCP610 Benchtop Static Calibrator For Static Probe Calibration

### User's Guide



Release: January 2020

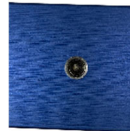
STI Vibration Monitoring Inc.  
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### Calibration

The CMCP-TKPC features a Starrett 263XL 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

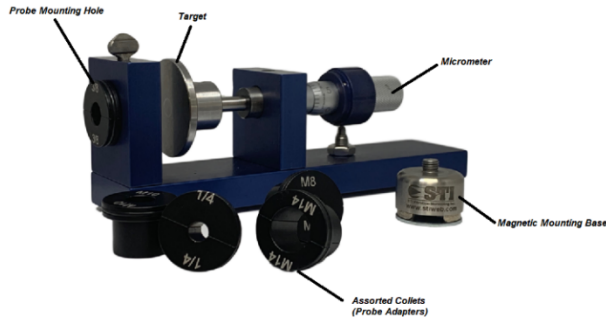
The QuickClick features a ball and plunger which indexes with the notches in the shaft adapter. The QuickClick tension can be set by adjusting the screw on the back on the calibrator. When fully loosened, the micrometer will free spin, allowing for 0.001" (English) or 0.01mm (Metric) graduations.



## Introduction

The CMCP610 Static Proximity Probe Calibrator provides a convenient and precise method of verifying the voltage output versus physical gap of a proximity probe system will work with any manufacturer's 5mm, 8mm or 11mm probes. Collets are provided for 1/4", 3/8", M8, M10, and M14 probes to allow the user to easily adapt the calibrator for the most popular sizes. 1/2" and 5/8" probes can be used without the collet by being held in place with the brass thumbscrew provided with the kit. 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: 1.50" (38.1mm)

Micrometer Range:

English: 0 to 1.00"

Metric: 0 to 25mm

QuickClick Graduations:

English: 0.005"

Metric: 0.1mm

Micrometer Graduations:

English: 0.001"

Metric: 0.01mm

## What's Included

1x Static Calibrator with QuickClick Adapter

5x Various Size Collets

1x Magnetic Base

1x Travel Case

## Downloaded Calibration Reporting Tool

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



## Instructions:

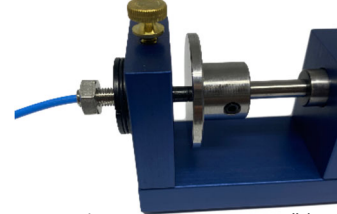
1. Zero micrometer by aligning the notches together at the 0 mark.



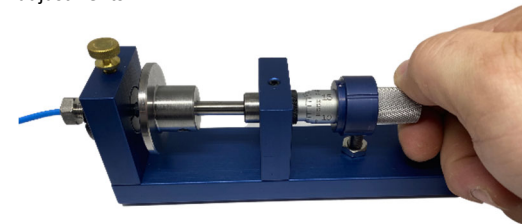
2. Insert the Proximity Probe into the correct size Collet. Collets are provided for 1/4", 3/8", M8 and M10 Probes.



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 proximator 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.