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› CGOLDENWALL High Precision Silk Screen Printing Tension Meter 7-36N User Manual

## CGOLDENWALL CGoldenWall576

# CGOLDENWALL High Precision Silk Screen Printing Tension Meter 7-36N User Manual

## 1. INTRODUCTION

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This manual provides detailed instructions for the proper use and maintenance of your CGOLDENWALL High Precision Silk Screen Printing Tension Meter. This instrument is designed for accurate measurement of mesh tension in silk screen printing applications, ensuring consistent and high-quality results. Please read this manual thoroughly before operation.



Image 1.1: CGOLDENWALL High Precision Silk Screen Printing Tension Meter.

## 2. PRODUCT OVERVIEW

### 2.1. Packing List

Upon unpacking, please verify that all items listed below are present and in good condition:

- 1 x Tension Meter
- 1 x Calibration Glass
- 1 x Storage Case
- 1 x Instruction Manual

# HIGH MEASUREMENT ACCURACY

Put the tension meter on the silk screen,  
the silk screen sinks, calculate the  
tension according to the sinking  
distance of the silk web



Precise



Simple



Sensitive



Portable



Image 2.1: Contents of the product packaging, including the tension meter, calibration glass, storage case, and manual.

## 2.2. Component Identification

Familiarize yourself with the various parts of the tension meter:

# PRODUCT STRUCTURE



Image 2.2: Diagram illustrating the main components of the tension meter, including the spindle sheath, pointer, scale disc, table body, calibration glass, measuring board, scale, and scale lock.

- **Spindle Sheath:** Protects the internal mechanism.
- **Pointer:** Indicates the tension reading on the scale.
- **Scale Disc:** The main dial displaying tension values.
- **Table Body:** The main housing of the meter.
- **Calibration Glass:** Used for zero calibration.
- **Measuring Board:** The contact surface that rests on the screen mesh.
- **Scale:** Markings around the dial indicating tension in N/cm.
- **Scale Lock:** Secures the scale in place.



Image 2.3: Various perspectives of the tension meter, showing its front, back, left, and right sides.

### 3. SETUP

The tension meter is factory-calibrated. However, it is essential to perform a zero calibration before each use to ensure accuracy.

#### 3.1. Zero Calibration

1. Place the tension meter on the provided calibration glass plate or any smooth, flat, and hard surface.
2. Turn the dial to reset the pointer to the zero mark. This ensures the meter is accurately calibrated for measurement.



This tensile testing machine measures mesh tension accurately and reliably, featuring a zero correction function and is non-disassemble.

● **Easy-to-use & Accurate Tension Checker:**

Ideal for monitoring tension during stretching.

● **Tests Mesh Tension in N/cm:**

Reliable, affordable, accurate results, no adjustment needed.

● **Includes Quality Packaging:**

Suitable for screen printing mesh stretching & tension application for durable frames.

● **High-Quality Recommendation:**

Essential for every screen printer.

Image 3.1: Illustration of placing the tension meter on a glass plate and adjusting the dial for zero calibration.

## 4. OPERATION

Follow these steps to accurately measure the tension of your silk screen mesh:

### MEASURING RANGE: 7~36N/CM

Measuring Value: N/cm      Error/Deviation: +/-1 Newton scope

● Before use, please place the tension meter on the glass and turn the dial to reset the pointer to zero.

● The tension meter is precisely calibrated and should not be disassembled alone.

Image 4.1: Visual guide to the operational steps for the tension meter, including initial calibration and measurement.

1. Perform zero calibration as described in Section 3.1.
2. Place the tension meter gently on the silk screen mesh. Ensure the measuring board is fully in contact with the mesh.
3. Gently flick the silk screen mesh. The pointer will move and then settle. The tension value is indicated by the pointer once it stops moving.
4. The Newton indication on the meter shows the tension at the contactor. The error margin is  $\pm 0.5N$ .
5. The second circle on the meter indicates the measured value during the measurement process. For accurate readings, observe the pointer's position after it has completed its initial movement and settled.

### 4.1. Understanding Readings and Tips


SCREEN TYPE	TYPE OF PRINTING TASK	TENSION (N/CM)
Ultra-high tension wire mesh	Circuit board and measuring tape	16-20
High-strength wire mesh	Multicolour and four-colour overprinting	16-20
High-precision ultra-fine wire mesh	High precision multilayer printing	25-30
High-precision polyester mesh (standard monofilament)	Polychrome and four-colour overprinter (fingemark)	8-12
Ordinary polyester mesh (standard monofilament)	Flat object	8-12
Nylon Wire Mesh	A rough surface or other surface	8-12

Image 4.2: Important tips for using the tension meter, including data display methods and calibration reminders.

- **Data Display Method:** The data indicated by the pointer during its first circle of movement is not accurate. The second circle provides the correct reading. You should gently flick the mesh beside the tension meter to help the pointer settle. The normal reading is taken from the second circle of the pointer.
- **N/cm:** This unit represents the pulling force per centimeter of mesh width. It is generally represented in Newtons (N) or Kilograms (Kg), where 1kg equals 9.8N.
- **Small Pointer:** The small pointer is used to display the number of complete circles made by the large pointer. For example, if the small pointer points to "2", it means the large pointer has circled twice.
- **Data Normal Reading:** You can read the data when the large pointer has stopped moving.

## 4.2. Recommended Tension Guidelines

The following table provides general tension guidelines for different screen types and printing tasks:



### INSTRUCTION

1. Before using, place the tension meter on the glass and turn the dial clockwise to reset the pointer to zero.
2. While measuring, flick the silk screen gently. The tension value of the silk screen is indicated by the pointer once it stops moving.
3. The tension meter is a precision instrument. Avoid dropping it or touching it unnecessarily. Handle with care during use.
4. The tension meter has been precisely tested before leaving the factory. Do not attempt to disassemble it on your own.
5. Avoid touching the bottom contactor with your hands. Store the machine vertically when not in use.
6. The Newton indication on the meter shows the tension at the contactor. The error margin is  $\pm 0.5N$ .
7. The second circle on the meter indicates the measured value during the measurement process.

Image 4.3: A table outlining recommended tension values (N/CM) for various screen types and printing applications.

Screen Type	Type of Printing Task	Tension (N/CM)
Ultra-high tension wire mesh	Circuit board and measuring tape	16-20
High-strength wire mesh	Multicolour and four-colour overprinting	16-20
High-precision ultra-fine wire mesh	High precision multilayer printing	25-30

Screen Type	Type of Printing Task	Tension (N/CM)
High-precision polyester mesh (standard monofilament)	Polychrome and four-colour overprinter (fingemark)	8-12
Ordinary polyester mesh (standard monofilament)	Flat object	8-12
Nylon Wire Mesh	A rough surface or other surface	8-12

## 5. MAINTENANCE

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- The tension meter is a precision instrument. Avoid dropping it or subjecting it to unnecessary impacts. Handle with care during use.
- Do not attempt to disassemble or re-repair the instrument on your own. Disassembly is not allowed as it may affect calibration and accuracy.
- Avoid touching the bottom contactor with your hands to prevent contamination or damage.
- Store the machine vertically when not in use, preferably in its protective storage case.
- Keep the calibration glass clean and free from dust or debris.

## 6. TROUBLESHOOTING

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- **Inaccurate Readings:** Ensure the meter is properly zero-calibrated on a flat, hard surface before each use. Gently flick the screen mesh to help the pointer settle for the most accurate reading (refer to the second circle of the pointer). If persistent inaccuracies occur, contact customer support.
- **Pointer Not Moving Smoothly:** Check for any obstructions on the measuring board or debris within the mechanism. Do not force the pointer.
- **Damage to Instrument:** If the instrument is dropped or visibly damaged, its accuracy may be compromised. Do not attempt self-repair.

## 7. SPECIFICATIONS

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# PRODUCT PARAMETER



Unit:	N/cm	Weight:	about 1kg
Measuring range:	7-36N/cm	Size:	about 95*115*40mm
Display error:	full scale error is $\pm 5\%$	Accessories:	Calibration glass

Image 7.1: Table detailing the technical parameters of the tension meter.

Parameter	Value
Measuring Range	7-36 N/cm
Measuring Value Unit	N/cm
Error/Deviation	$\pm 1$ Newton scope (Full scale error $\pm 5\%$ )
Material	Metal
Item Weight	Approximately 1 Kilogram (2.2 Pounds)
Package Dimensions	11.46 x 9.17 x 3.82 inches
Model Number	CGoldenWall576
UPC	536936938860
Accessories	Calibration glass

## 8. WARRANTY AND SUPPORT

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This product is covered by a standard manufacturer's warranty against defects in materials and workmanship. For specific warranty details, please refer to the documentation included with your purchase or contact CGOLDENWALL customer service.

For technical support, service, or inquiries, please contact your retailer or the manufacturer directly. Do not attempt to repair the device yourself, as this may void the warranty and cause further damage.

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