

TECHTONGDA 8X16"

# TECHTONGDA 8X16" Variable Speed Metal Bench Lathe User Manual

Model: **8X16"** | Brand: **TECHTONGDA**

- Introduction
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## 1. INTRODUCTION

This manual provides comprehensive instructions for the safe and efficient operation of your TECHTONGDA 8X16" Variable Speed Metal Bench Lathe. This professional-grade lathe is designed for various metalworking tasks including turning, facing, drilling, boring, and thread cutting. It is suitable for precision parts processing, sample creation, and model making. Please read this manual thoroughly before initial use to ensure proper setup, operation, and maintenance.

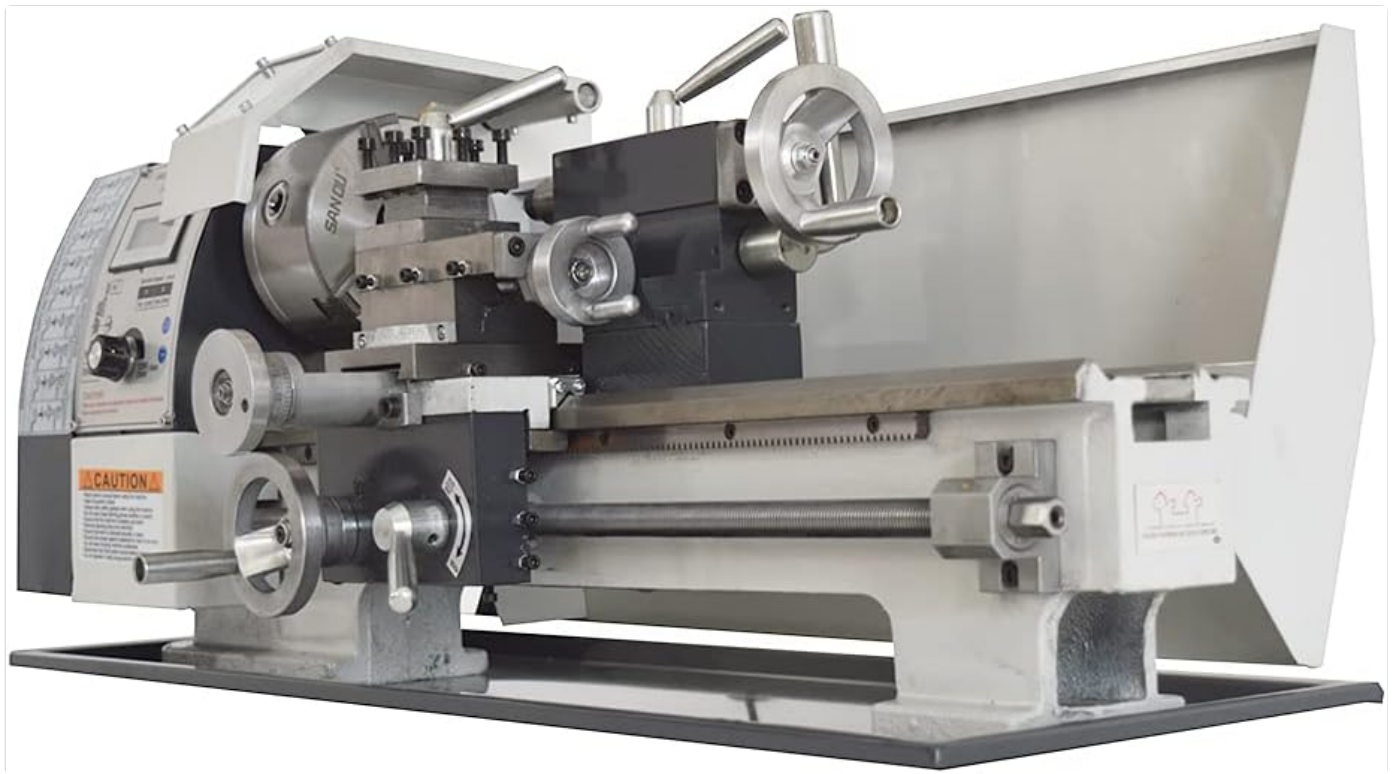


Figure 1: Overview of the TECHTONGDA 8X16" Metal Bench Lathe.

## 2. SAFETY INSTRUCTIONS

Your safety is paramount. Always follow these safety guidelines when operating the lathe:

- **Read the Manual:** Understand all instructions and warnings before operating the machine.
- **Personal Protective Equipment (PPE):** Always wear safety glasses or a face shield. Use appropriate hearing protection and wear gloves when handling materials, but remove them when operating rotating parts.
- **Work Area:** Keep your work area clean, well-lit, and free from clutter. Ensure adequate space around the lathe.
- **Machine Condition:** Before each use, inspect the lathe for any damage or loose parts. Do not operate a damaged machine.
- **Emergency Stop:** Familiarize yourself with the location and function of the emergency stop switch. The lathe is equipped with an emergency stop switch and overload protection device for operator safety.
- **Secure Workpiece:** Always ensure the workpiece is securely clamped in the chuck or between centers before starting the machine.
- **Adjustments:** Never make adjustments to the machine while it is running.
- **Clothing:** Avoid loose clothing, jewelry, or long hair that could get caught in moving parts.
- **Supervision:** Never leave the machine unattended while it is operating.

## 3. SETUP AND COMPONENTS OVERVIEW

Before operating your lathe, ensure it is properly set up and you are familiar with its main components.

### 3.1 Product Dimensions

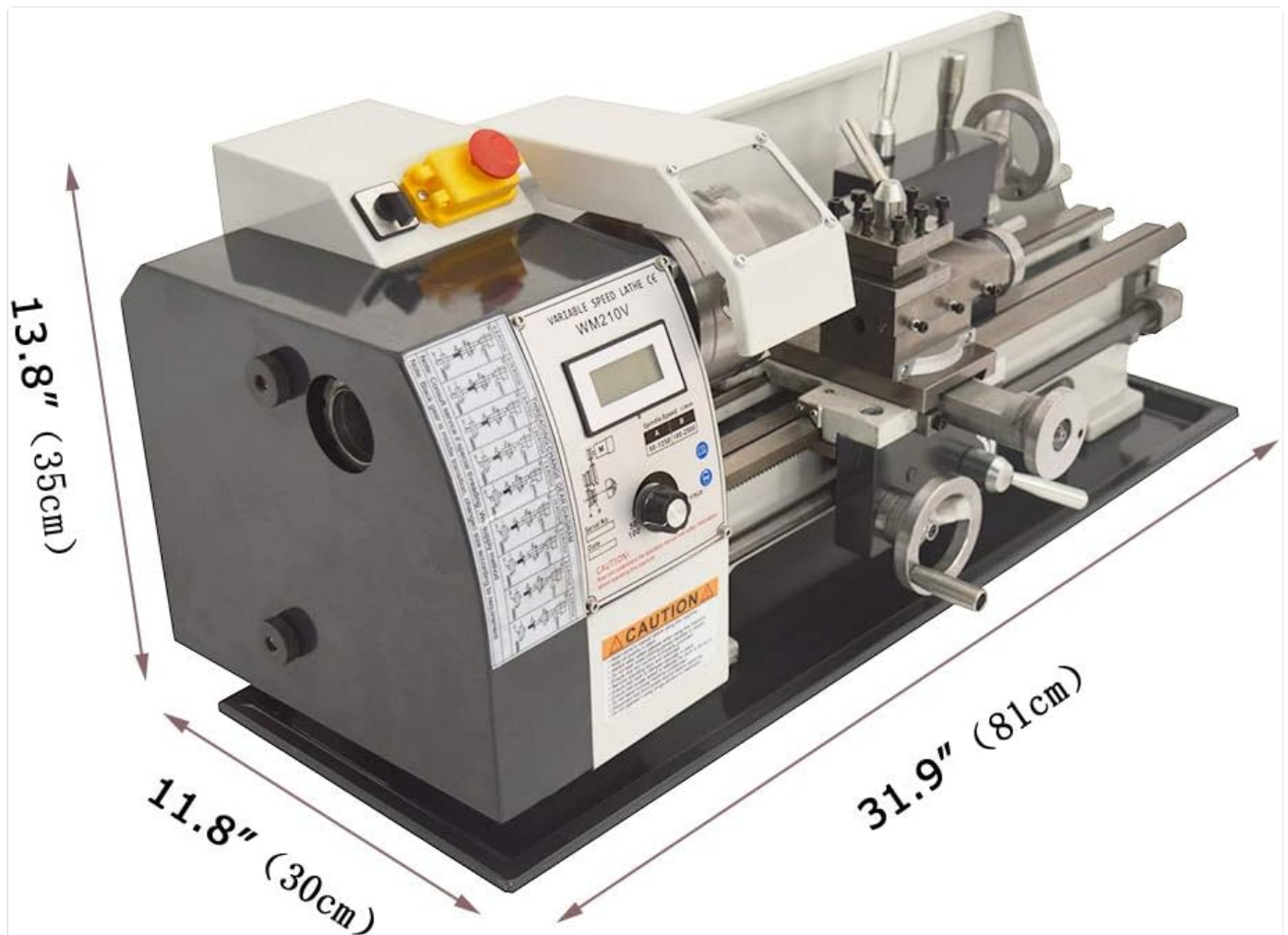


Figure 2: Overall dimensions of the lathe. The machine measures approximately 31.9 inches (81 cm) in length, 11.8 inches (30 cm) in width, and 13.8 inches (35 cm) in height.

## 3.2 Component Identification

Refer to the structure chart below to identify the key components of your lathe.

# Structure Chart

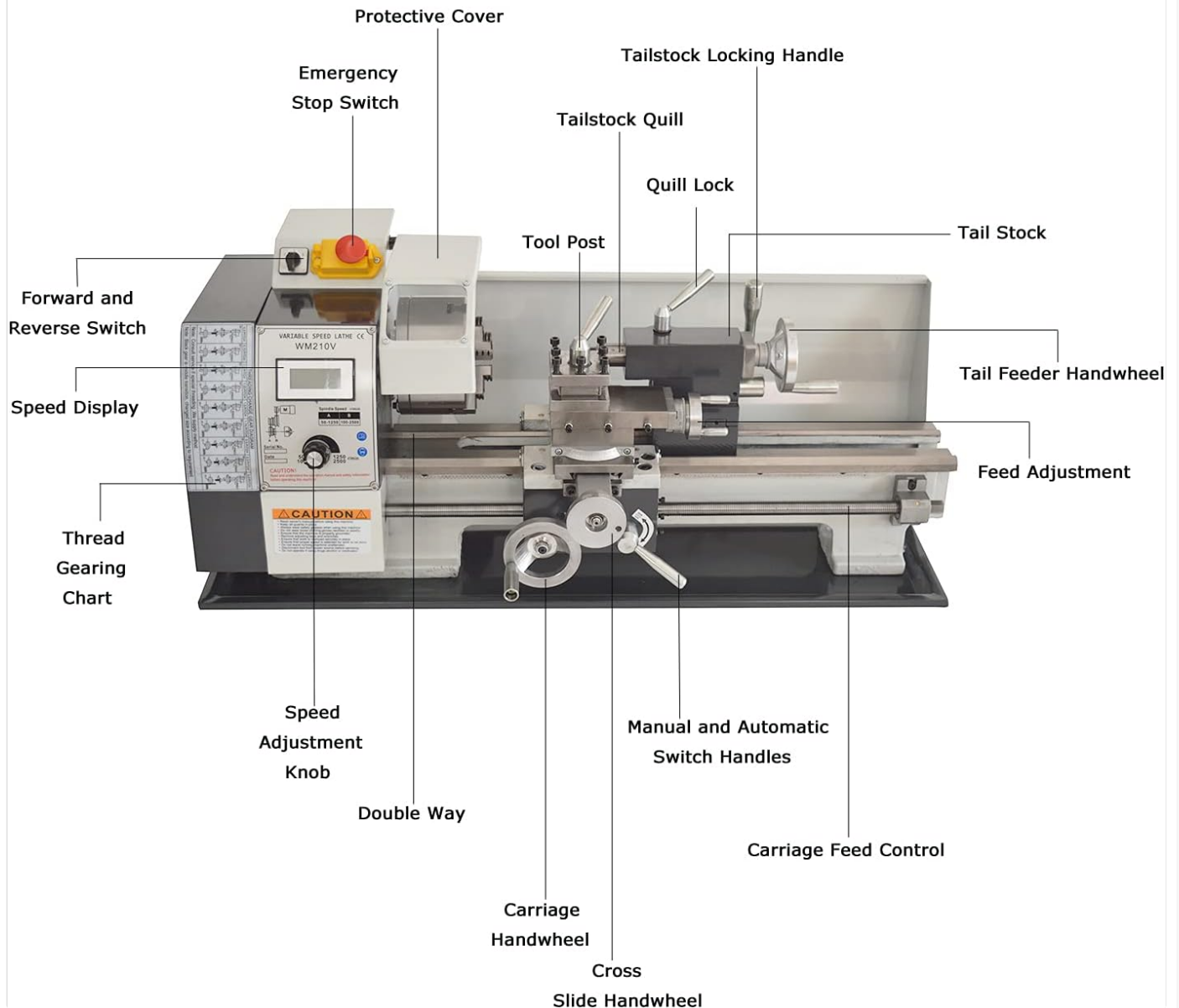


Figure 3: Detailed structure chart showing components such as Protective Cover, Emergency Stop Switch, Forward and Reverse Switch, Speed Display, Thread Gearing Chart, Speed Adjustment Knob, Double Way, Carriage Handwheel, Cross Slide Handwheel, Tailstock Locking Handle, Tailstock Quill, Quill Lock, Tail Stock, Tail Feeder Handwheel, Feed Adjustment, and Manual and Automatic Switch Handles.

## 3.3 Power Connection

Connect the lathe to a standard 110V power outlet. Ensure the power supply is stable and meets the machine's requirements.

## 4. OPERATION

This section details the operational procedures for various machining tasks.

### 4.1 Control Panel and Speed Adjustment

The lathe features an infinitely variable speed control, allowing precise adjustment of spindle speed. The 900W brushless motor provides ample power and eliminates the need for brush replacement.

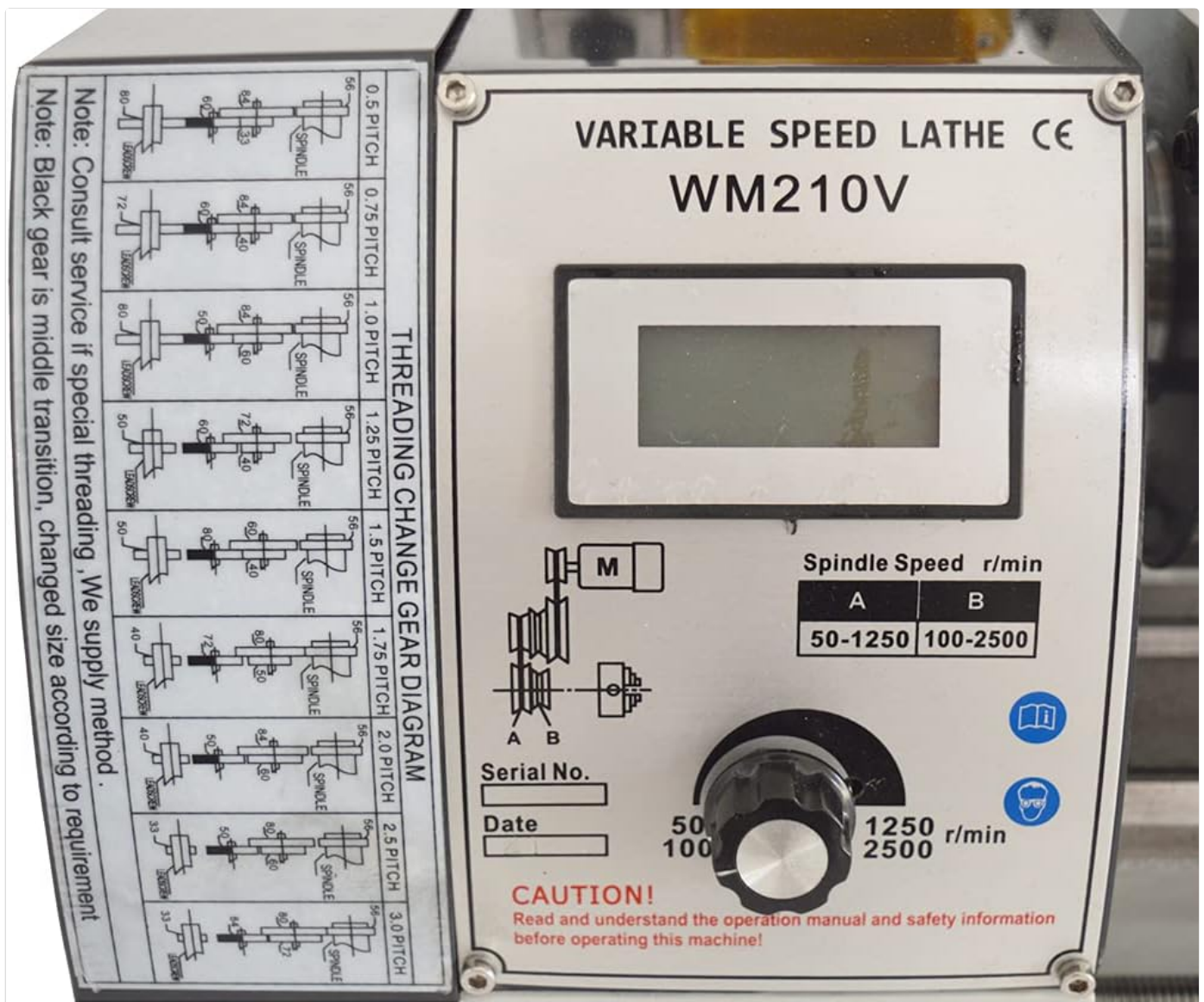


Figure 4: The control panel includes a speed display and a speed adjustment knob. Spindle speed can be adjusted within the range of 50-2500 RPM. A threading change gear diagram is also present for reference.

## 4.2 Basic Machining Operations

The lathe supports various operations. Always ensure the workpiece is securely mounted and the cutting tool is correctly positioned before starting.

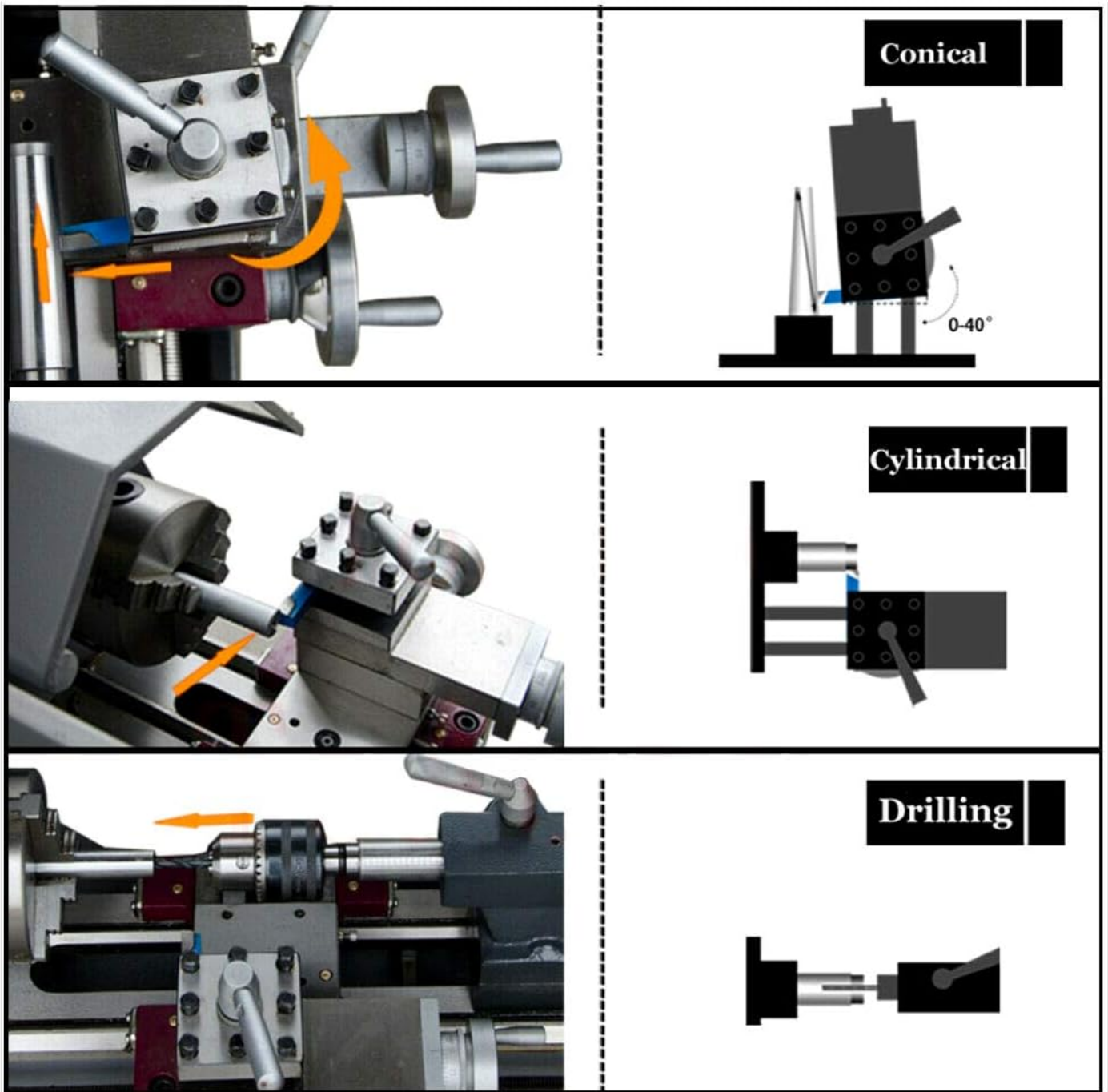


Figure 5: Visual guide for common lathe operations: **Conical Turning** (tapering a workpiece), **Cylindrical Turning** (reducing diameter), and **Drilling** (creating holes along the axis).

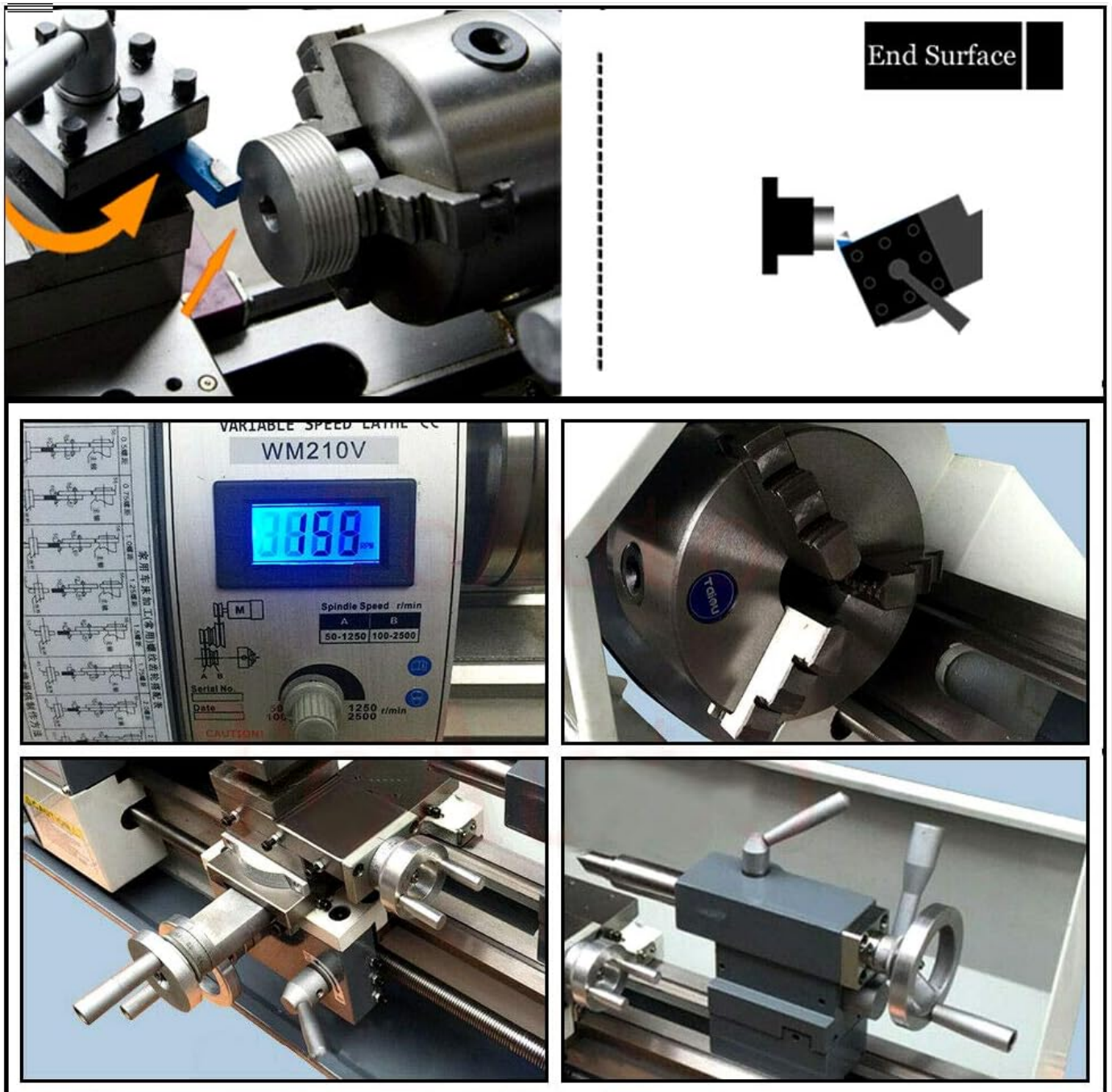


Figure 6: Illustration of **End Surface** machining (facing), along with close-ups of the control panel, chuck, and tailstock components.

### 4.3 Operational Demonstration Video

Watch this video for a visual demonstration of the lathe in operation, including setup and various machining processes.

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Video 1: A demonstration of the TECHTONGDA Mini Metal Lathe Machine performing various operations such as turning and drilling. The video highlights the machine's functionality and ease of use.

## 5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your lathe. All gears are made of metal, and the spindle is supported by precision taper roller bearings, contributing to a longer service life.

- **Cleaning:** After each use, clean the machine thoroughly, removing all chips and debris.
- **Lubrication:** Regularly lubricate all moving parts, including the lead screw, cross slide, and tailstock quill, according to the lubrication points indicated in the machine diagram.

- **Inspection:** Periodically check for loose bolts, worn belts, or damaged electrical cords. Tighten or replace as necessary.
- **Gear Inspection:** Inspect the gear mechanism for wear or damage. Ensure proper engagement and lubrication.

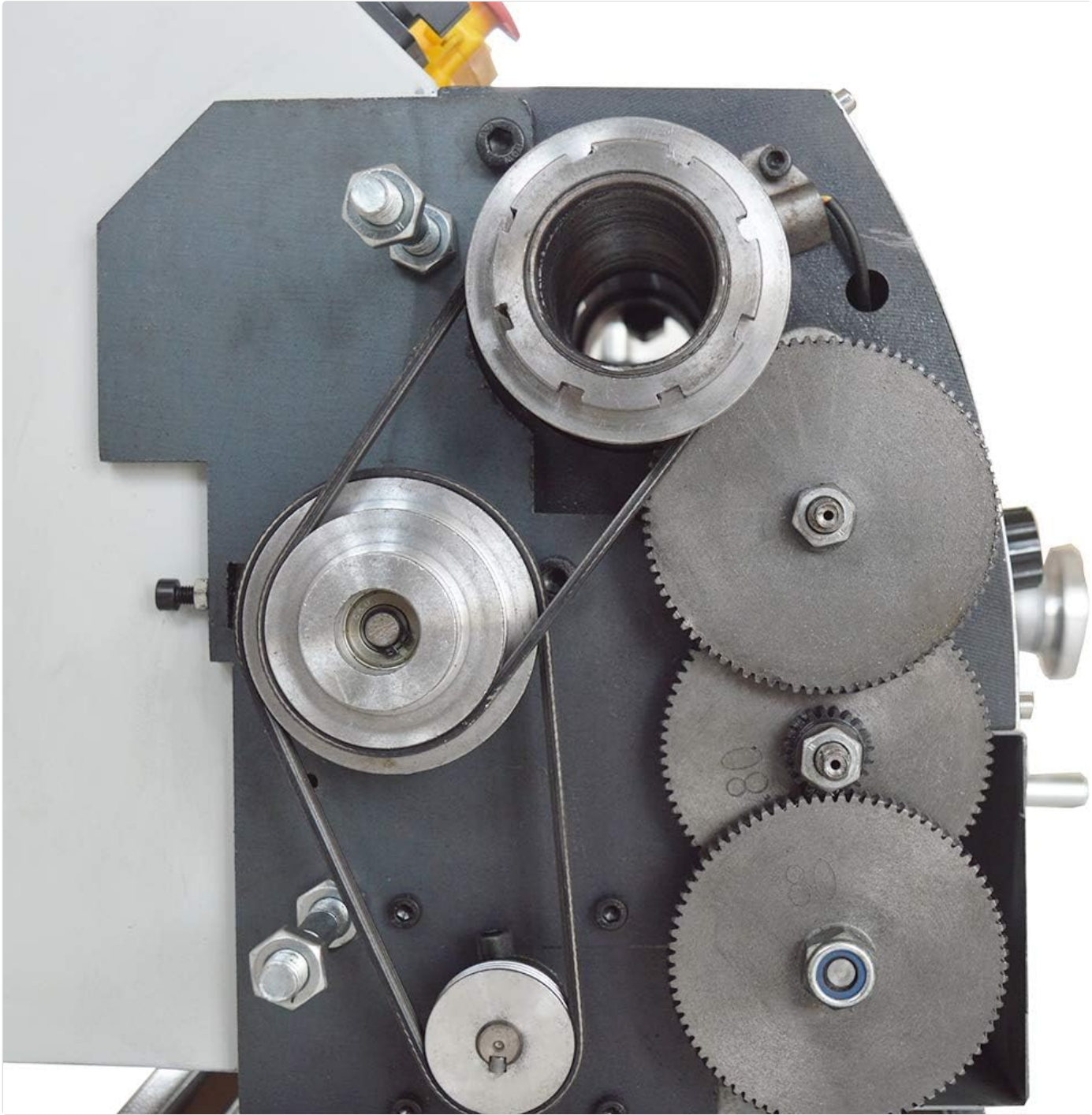


Figure 7: View of the internal gear mechanism, highlighting the all-metal gears designed for durability and extended service life.

## 6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

| Problem                   | Possible Cause                                                       | Solution                                                                     |
|---------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------|
| Machine does not power on | No power supply; Emergency stop engaged; Overload protection tripped | Check power connection; Disengage emergency stop; Reset overload protection. |

| Problem                          | Possible Cause                                                    | Solution                                                                            |
|----------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Spindle not rotating             | Motor issue; Belt slippage; Speed setting too low                 | Inspect motor and belts; Adjust speed setting.                                      |
| Excessive vibration or noise     | Unbalanced workpiece; Loose components; Worn bearings             | Secure workpiece; Tighten all fasteners; Inspect and replace bearings if necessary. |
| Poor surface finish on workpiece | Dull cutting tool; Incorrect speed/feed rate; Machine instability | Sharpen or replace tool; Adjust speed and feed; Check machine for rigidity.         |

## 7. SPECIFICATIONS

Key technical specifications for the TECHTONGDA 8X16" Metal Bench Lathe:

| Feature             | Detail                                     |
|---------------------|--------------------------------------------|
| Manufacturer        | TECHTONGDA                                 |
| Model Number        | L028284                                    |
| Item Weight         | 165 pounds                                 |
| Size                | 8X16"                                      |
| Color               | Grey                                       |
| Material            | Stainless Steel                            |
| Motor Power         | 900W Brushless Motor                       |
| Spindle Speed Range | 50-2500 RPM (Infinitely Variable)          |
| Voltage             | 110V                                       |
| Safety Features     | Emergency Stop Switch, Overload Protection |

## 8. WARRANTY AND SUPPORT

For any questions, technical assistance, or warranty claims, please contact the seller, TOPSELLER INC. The product typically includes a 30-day easy return policy. Additional protection plans may be available for purchase.

- **Seller:** TOPSELLER INC
- **Return Policy:** 30-day refund/replacement (check specific purchase terms)
- **Protection Plans:** Optional 4-Year Protection Plan or Asurion Complete Protect may be available.

Always refer to your purchase documentation for specific warranty details and contact information.

## ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

### Name

Anonymous

### Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

### Question

Example: How do I reset this device or fix this error?

### Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question