

# *noztek* **pro**

## USER MANUAL



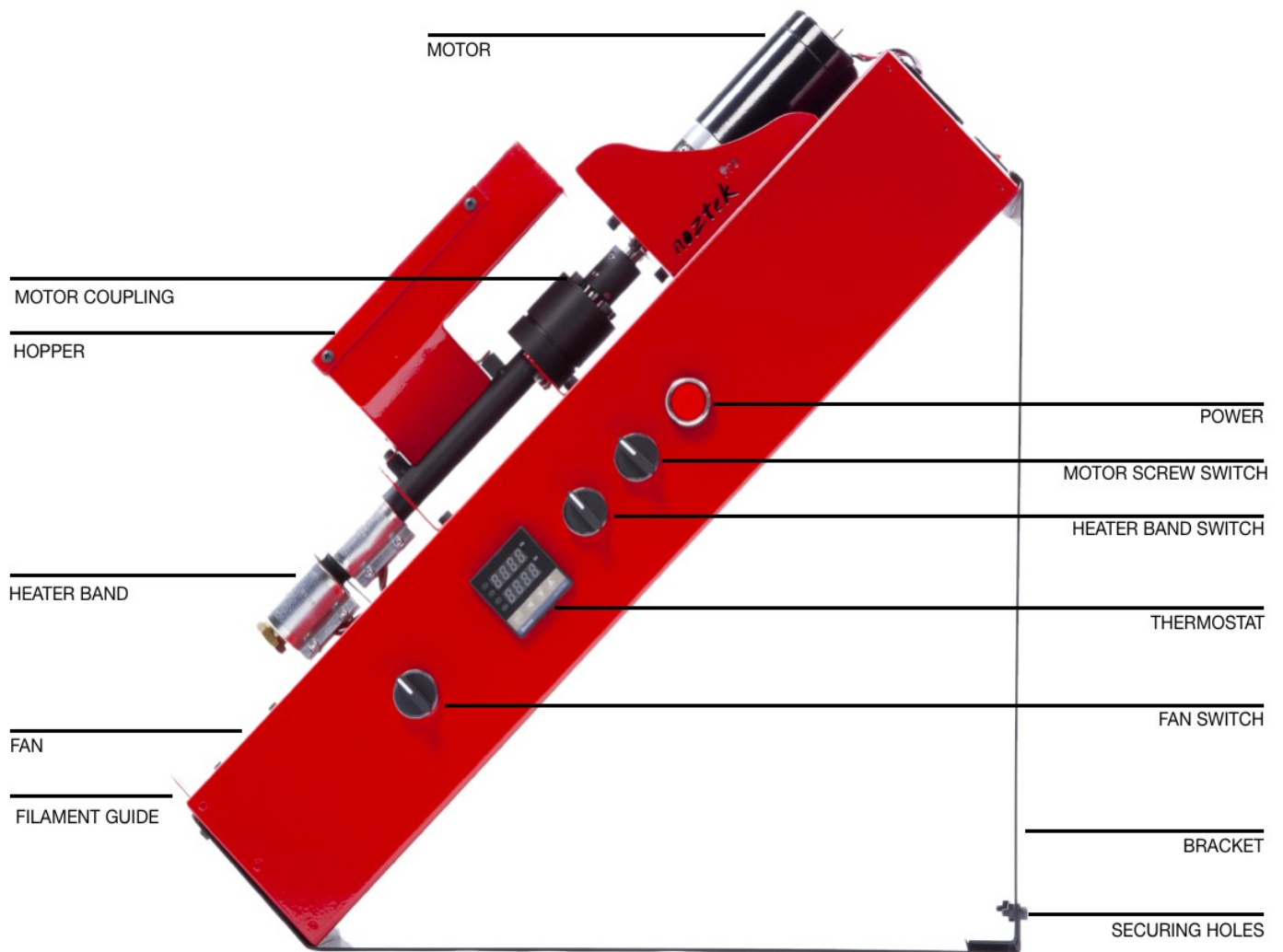
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## WARRANTY

- Equipment manufactured by Noztek carries the standard machine tool guarantee of freedom from defects in workmanship and material for one year from date of shipment.
- TO INSURE THAT YOUR WARRANTY IS HELD IN EFFECT, PROPER OPERATION PROCEDURES MUST BE OBSERVED.
- NOTE: READ THE SAFETY PRECAUTIONS BEFORE OPERATING THIS MACHINE.

## SAFETY

1. Know your equipment
  2. Carefully read the instruction manual.
  3. Learn the use and limitations of the equipment.
- DO NOT operate or use this equipment for any purpose other than its intended use.
  - DO NOT modify this equipment.
  - DO NOT perform adjustments or maintenance while system is operating or energize
  - Do not clean the equipment with flammable solvents.
  - Do not wash down the equipment with water. This could cause an electrical hazard.
  - Do not probe into extruder vent with the machine running. Never Use a metal probe in the vent area. The screw may shear the probe, causing extensive damage to the barrel and screw. A wooden probe is recommended.
  - A face shield, insulated gloves, etc. should be worn around the extruder during operation. They must be worn when adjusting the die, cleaning the screw, etc. The extruder temperatures are extremely hot.
  - The feed hopper must be installed on the extruder feed section at all times when in operation
  - Never put hands in the feed section or vent to remove material.
  - Do not switch on the motor until the recommended temperature has been reached



## INTRODUCTION

The Noztek desktop extruder has been designed to produce high quality ABS and PLA filament for use with 3D printers. For best results we recommend using extrusion grade polymer pellets.

## QUICK START GUIDE

First attach the hopper; the bolts are located in the bolt holes in the barrel. Then attach the 45 degree bracket (if using). There are six bolts, two for either end and two which connect the bracket together.

Before you turn on the motor, switch on the heater element, let it reach your desired temperature then wait 15 minutes for the barrel, screw and nozzle to thoroughly heat up. (DO NOT SWITCH ON THE SCREW UNTIL THE DESIRED TEMPERATURE HAS BEEN REACHED AND MAINTAINED FOR AT LEAST 15 MINUTES). Add your pellets, then turn on the motor, pull the filament through the guide and switch on the fan. Switch on the heater (middle switch) and you will see the temperature gauge lower LED, above this is the current temperature.

To change the temperature setting, press the set button and use the up/down buttons to adjust the temperature, then press the set button again.

## POWER SWITCH

Your Noztek Pro features an illuminated on/off switch. In an emergency simply push the button and the Noztek Pro will completely switch off.

## BRACKET

If you are using the 45 degree bracket it is very important that the extruder is secured to a workbench using the mounting holes in the bottom of the bracket.

## OPERATION GUIDE

- Remove the unit from the packaging
- If you are using the 45 degree bracket, secure the extruder to a bench using the mounting holes.
- Plug the extruder into mains power.
- Switch on the heater element and adjust the temperature gauge to the desired setting. For ABS we recommend between 180 – 200 degrees Celsius and PLA between 165 -175c. To adjust the heat setting press the set key once, the temperature LED will then flash, then the click up or down key to adjust. When you reach the desired temperature click the set button to engage. Let the extruder barrel heat fully, this should take about 15 minutes.
- Once the required temperature has been reached, fill the hopper with resin pellets.
- Switch on the screw motor (Do not switch on the motor until the recommended temperature has been reached).
- Switch on the fan
- After a few minutes you will see plastic filament starting to extrude, carefully feed this through the guide. This filament will be hot so use heat resistant gloves
- Extrude approximately 5m of filament, switch off the motor, cut off the excess material then restart the motor. This should help to eliminate any air bubbles and metal particles in the system.
- Adjusting the temperature also affects the tolerance of the filament. The higher the temperature, the thinner the filament. The lower the temperature, the thicker the filament. Make these adjustments in 5 degree celsius increments.
- If the extruder is left unattended for any period of time we recommend using a mains timer switch.

## CHANGING THE NOZZLE

Before attempting this operation please use insulated gloves. To switch between nozzle sizes to heat up the unit to 175c. Unscrew the nozzle, clean off any excess plastic from the internal threads, then screw on new nozzle.

## COLOUR MIXING

Adding colours is simple. Mix the natural and the colorant at the given ratio, then pour it into the hopper. It will take 10-20 minutes to see changes in the colour. It is also possible to mix colorants to create new colours. For example, mix blue and yellow to make green.

## MAINTENANCE

Regular cleaning of your plastic extrusion tooling during the disassembly process lengthens machine life, helps reduce waste and helps maintain tighter tolerances for your final product. Use a wire brush and fine metal pick to clean the threads and the screw assembly.

## BARREL JAM

Depending on the type of resin you are using, you may occasionally experience a barrel jam. If at any time during extrusion the motor starts to labour and slow right down, switch off the motor immediately. A good way to free the jam is to turn the temperature up to around 230-240c and leave for 15 - 20 minutes, then switch on the motor again; this should allow the screw to rotate again. Also using a blow torch to heat the barrel just past the hopper will usually release any solidified plastic and free the screw.

## CONTACT NOZTEK

Please see our FAQ help section on our website at [www.noztek.com](http://www.noztek.com) for further troubleshooting. If the answer to your query is not found here, please contact the Noztek expert team directly.

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