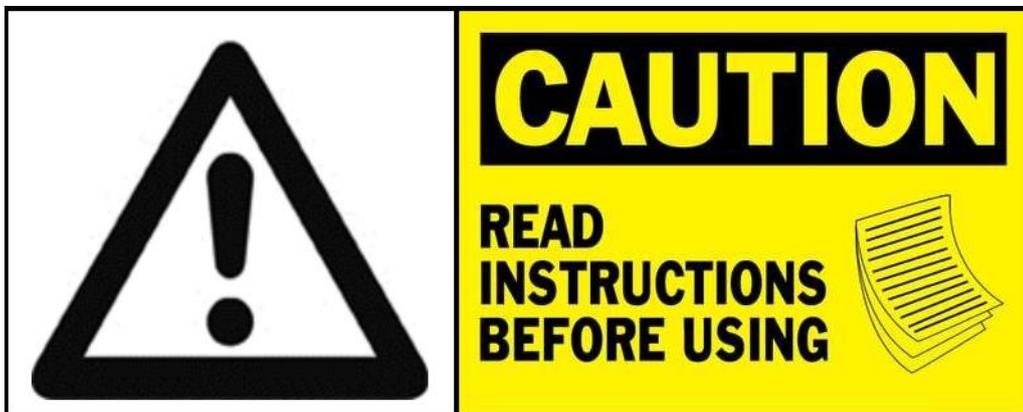


Filafab™ PRO EX100 PRO EX350

Operating Manual



IMPORTANT

READ OPERATING MANUAL BEFORE CONNECTING
OR OPERATING.

READ ALL SAFETY INFORMATION.

RETAIN FOR FUTURE REFERENCE.

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Disclaimer

This manual is intended for your safety and protection. This information could contain technical inaccuracies, typographical errors and out-of-date information. This document may be updated or changed without notice at any time. Use of the information is therefore at your own risk. In no event shall D3D Innovations Limited be liable for special, indirect, incidental or consequential damages resulting from or related to the use of this document. D3D Innovations Limited makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims the implied warranties of merchantability or fitness for a particular purpose.

Warning

This is a mains electrical appliance and must be earthed. If you have any questions or are not qualified to work on the equipment seek professional assistance. Do not remove the cover to the power supply module under any circumstances. The power supply is not user serviceable. Make sure the correct fuse (3A) is fitted into the AC cable plug (if cable features a fuse).

Product Warranty

D3D Innovations warrants to the original buyer only, that all products and services furnished hereunder shall be free from defects in material and workmanship. This warranty is subject to the following terms and conditions. 1. This warranty shall remain in effect for a period of one (1) year from date of start-up or thirteen (13) months from date of shipment whichever is earlier; provided however that notice of any such defect is reported to D3D Innovations within thirty (30) days following its discovery. 2. Parts that normally contact the extruded material shall have a warranty period of three (3) months from start-up or four (4) months from date of shipment whichever comes first; provided however that notice of any such defect is reported to D3D Innovations within ten (10) days following its discovery. 3. This warranty is not applicable to the nozzle. This item to be warranted for thirty days. 4. The start-up date for parts sold as "spare parts" will be considered the date of shipment for purposes of this warrantee only. 5. Consumables such as nozzles, nozzle adapters and heater elements expendable and will only be warranted to be functional at time of shipment. 6. In the event any material or workmanship shall be determined defective by D3D Innovations, D3D Innovations liability hereunder is limited to the repair or replacement, at D3D Innovations option, of the defective part. D3D Innovations shall have NO liability for the costs of removing, returning, or reinstalling any repaired or replaced part or component. 7. D3D Innovations shall have no liability whatsoever for any defects which directly or indirectly arise out of or result from accident, abuse, improper use, vandalism, unauthorised repairs, or similar deviations from normal use under D3D Innovations control. 8. This warranty shall be void and of no effect if the products covered hereby are: A. Installed or moved and reinstalled without following instructions. B. Not maintained in accordance with D3D Innovations published maintenance procedures. C. Altered or modified in any way without D3D Innovations authorisation. Except as provided above, D3D Innovations makes no other warranties, expressed or implied, including without limitation, warranties of merchantability, or of fitness for a particular purpose.

Notices

- No part of this manual may be reproduced, copied, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form, by any means, without D3D Innovations Limited prior written permission.
- D3D Innovations Limited reserve the right to change the specifications of the hardware described in this manual at any time and without prior notice.
- D3D Innovations Limited will not be held liable for any damages resulting from the use of this product.
- While every effort has been made to ensure that the information in this manual is accurate and complete we accept no liability for errors or omissions. We would however appreciate it were you to bring any errors or omissions to the attention of D3D Innovations Limited.



The crossed-out wheeled bin mark symbolises that within the European Union the product must be collected separately at the product end-of-life. This device is designated for separate collection at an appropriate collection point. Do not dispose of as household waste. For more information, contact the retailer or local authorities in charge of waste management.



All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.



This apparatus is manufactured to comply with the Machinery Directive

2. Welcome

Thank you for purchasing a D3D Innovations Limited's FilaFab EX desktop thermoplastic extrusion system. Please make sure you read all of the safety precautions and keep this manual for future reference.

General Equipment Specifications

This page is a record of your equipment specifications. This information is found on the nameplate label of your machine. Please fill in the blanks below when you receive your FilaFab unit. When contacting the sales or service department to order parts or obtain information, refer to this page. This will allow us to respond quickly and accurately to your request.

MODEL NO: _____

SERIAL NO: _____

MODEL: _____ FilaFab PRO EX 350 _____

TYPE: _____ Desktop Extruder _____

Specifications

Physical	PRO EX 100	PRO EX 350
Width	164	164
Depth	490	640
Height	240	240
Weight	8kg	12kg

Electrical	PRO EX 100	PRO EX 350
Supply	120 to 230 V, 50/60 Hz, Single Phase	
Max temperature*	250C	
Heater Power	200W	
Max Power	350W	600W

Sound Emissions	PRO EX 100	PRO EX 350
A-weighted workstation sound pressure	<70dB(A)	
Peak C-weighted workstation sound pressure	<63Pa	

Extruder	PRO EX 100	PRO EX 350
Typical auger speed	10RPM	5 - 30 RPM
Typical Auger torque	20N.m	45N.m
Typical extrusion rate	250g per hour	800g per hour

*Max Temperature is advisory; ensure Temperature Controller settings configured correctly.

Features

- Built in hopper
- Speed controller (EX 350 only)
- Safety systems
- Easy servicing
- Changeable nozzle
- Integrated digital temperature controller
- Soft 'non-latch' power controls
- IEC power inlet
- Rubber feet

How it Works

Fused Filament Fabrication (FFF)

In a FFF 3D printer a filament, usually 1.75mm or 2.85mm in diameter, is heated in an extrusion chamber mounted on a moving platform before being fed through a fine nozzle, the melted filament is then used to create 3D objects.

FilaFab PRO EX series extruders are designed to produce filament for FFF printers. By melting down polymer in the form of pellets before extruding it through a nozzle designed to produce a filament with a predetermined diameter, usually 1.75mm or 2.85mm.

Typically a master batch is produced which can contain colourants and additives in addition to plastic pellets. This master batch is then loaded into the machine for extrusion into filament.

Which Materials can I extrude?

FilaFab PRO EX series extruders are designed to extrude thermoplastics only. Do not attempt to extrude a thermosetting plastic since charring will occur. Unlike thermoplastics, thermosetting plastics cannot be reformed once they have been fabricated.

FilaFab has been extensively tested for use with Acrylonitrile Butadiene Styrene (ABS) and Polylactic Acid (PLA). Many varieties of plastics are available and the user should therefore consult the manufacturers to ascertain the best temperature settings and suitability for extrusion. If other materials are used it is the user's responsibility to ensure that the optimal temperature settings are used and that the material is safe for use. Not all materials will be compatible and non-compatible materials may cause blockages or damage to your FilaFab PRO EX extruder.

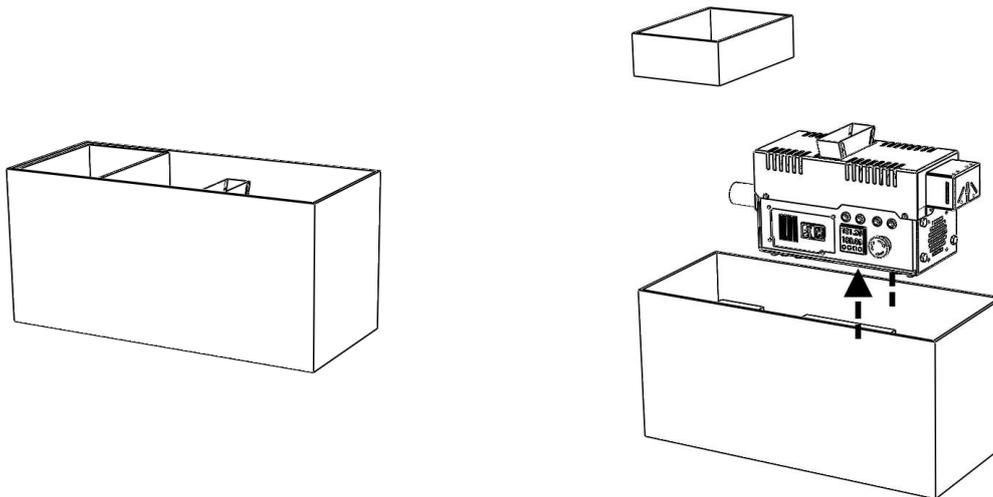
Note on PET: PET is a complex material to extrude; D3D Innovations urges users not to attempt to extrude this material. Remember that incompatible materials can cause blockages or damage to your FilaFab EX extruder.

3. Operation Instructions

Lifting and Transport Instructions

Unpacking

- 1) Remove the accessories carton from the box.
- 2) Use two hands to lift the machine out of the packaging box carefully from underneath and place on a firm flat surface.



- Be careful when lifting or moving.
 - Lift from underneath.
 - Do not lift by the motor cable.
 - Avoid the in-line cable circuit at the back of the machine.
- 3) Remove the outer plastic bag and silica gel pouch.
 - 4) Retain packaging for future use.

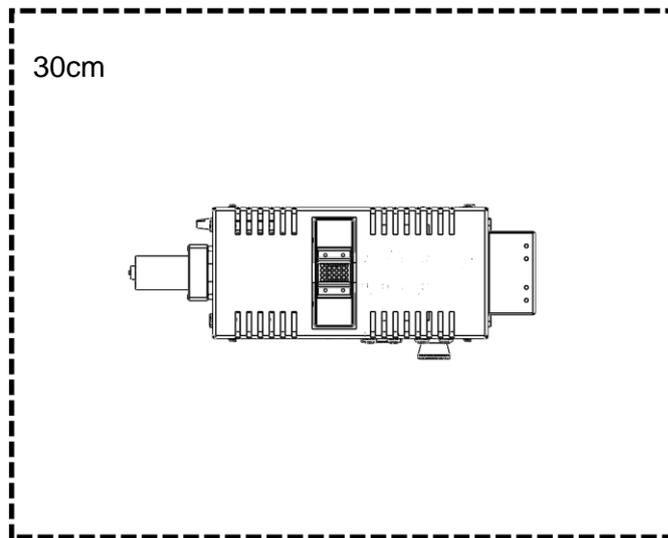
Transport

Use the packaging supplied with the machine

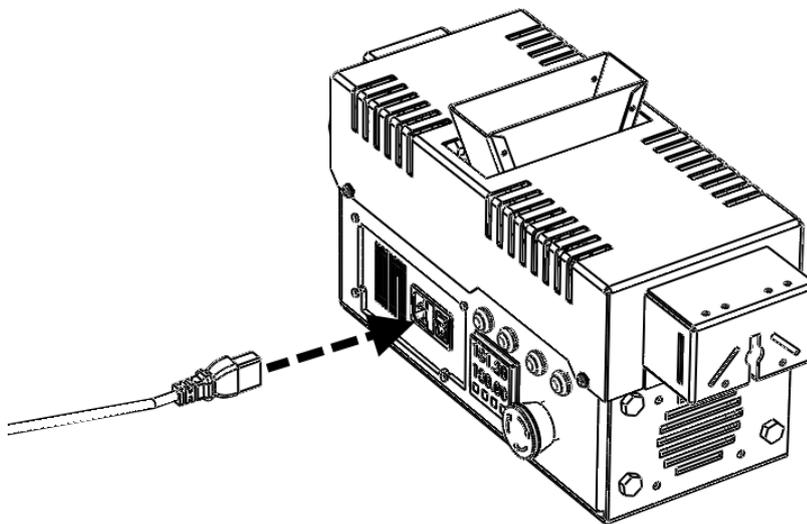
- Use caution when transporting since machine can weigh up to 12kg depending on the model.
- Isolate and unplug the power cable when lifting or transporting.
- When transporting remove the nozzle to avoid damage.
- Make sure the machine has cooled down before attempting to lift or transport.
- Keep level when lifting or moving.
- Lift only, do not drag.

Installation

- 1) Place on a firm and level surface.
- 2) Observe minimum keep-out area.

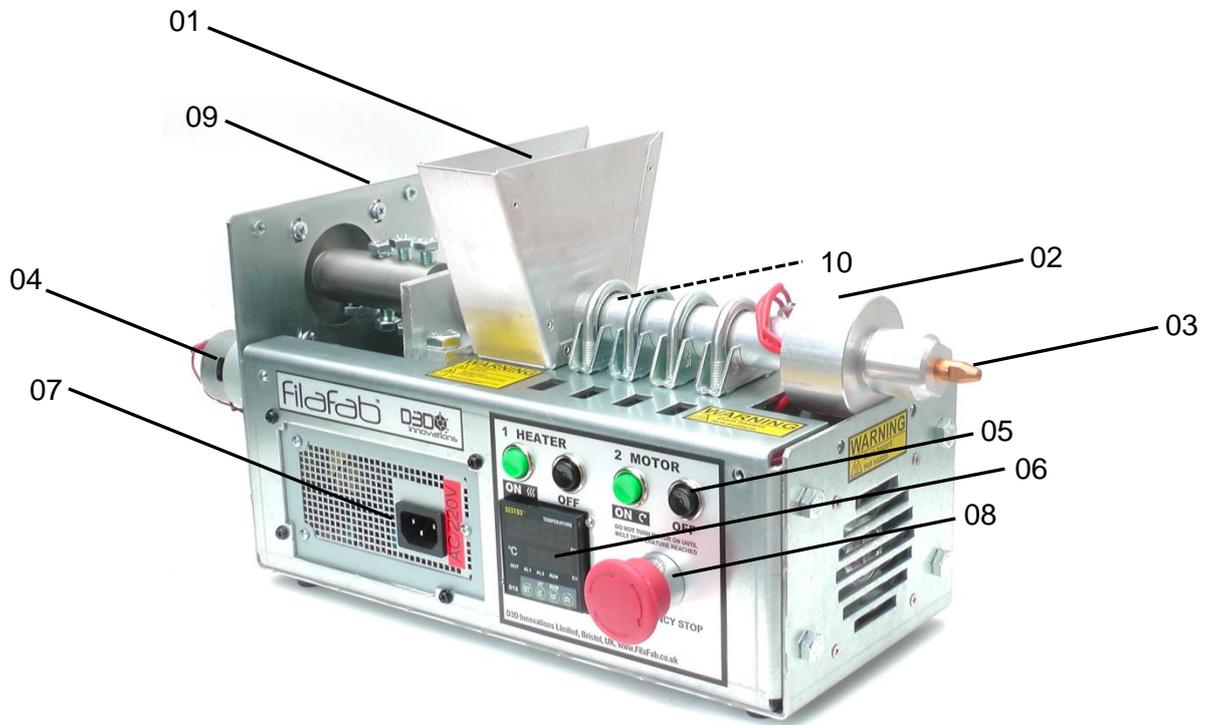


- 3) Connect power cable to the machine and connect to mains supply (see specifications for electrical details)



- Only use in well ventilated areas.
- Keep the area around the machine clear.
- Do not use under cupboards or other low hanging objects, including curtains.
- Do not use outdoors.
- Do not operate appliance after the appliance malfunctions, or has been damaged in any manner.
- To protect against electric shock, do not immerse any part of this product in water or other liquid.
- Before plugging in, check that the voltage on the rating label is the same as the main supply.
- This appliance must be earthed.

Machine Overview



Part Number	Description
01	Hopper & Auger Guard
02	Heater Block
03	Removable Nozzle Assembly
04	Motor
05	Control Buttons
06	PID Temperature Controller
07	Power Supply
08	Emergency Stop Button
09	Speed Control (350 only)
10	Auger Screw

Part 01 Hopper & Auger Guard

The riveted aluminium hopper contains the material for feeding into the auger at the base of the hopper.

The hopper is made from aluminium and is thermally connected with the extrusion shaft. This is to allow the granules in the hopper to be pre-heated before being drawn into the screw.

Please note that the side walls of the hopper can present a burn hazard since they will become very hot depending on the temperature settings.

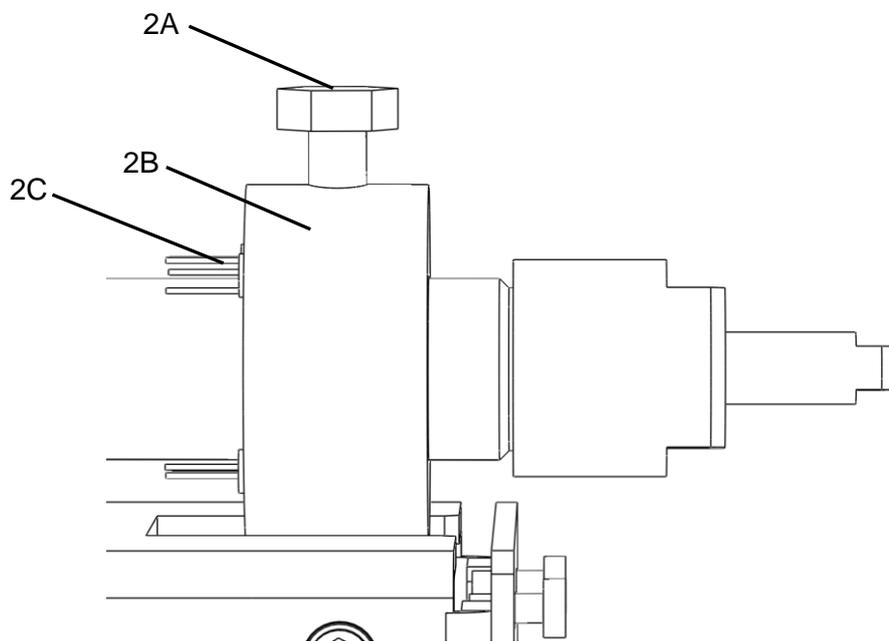
Some polymers, for example PLA, may stick to the heated hopper sidewalls or to the screw at the entry to the extrusion tube. If this occurs then the polymer can be scrapped from the hopper sidewalls or directed straight into the auger by using an ancillary granule tube.

Safety Related Component

A guard has been fitted to avoid direct exposure to the auger. This safety device must not be interfered with or removed.

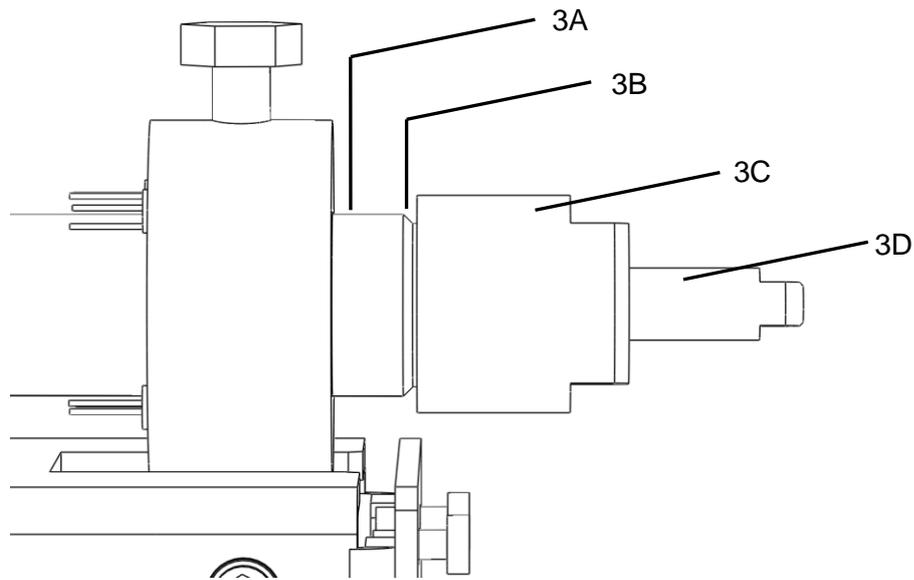
The auger system is designed to provide an overpressure release by either not feeding any more material from the hopper or by back feeding material back into the hopper.

Part 02 Heater Block



Part Number	Description
2A	Block Fixing
2B	Heater Body with thermocouple
2C	Heater Cartridges

Part 03 Removable Nozzle Assembly



Part Number	Description
3A	Extrusion Tube (M25 fitting)
3B	Safety Breaking Point
3C	Nozzle Adapter
3D	Nozzle

3A – The extrusion tube houses the extrusion auger (screw) and coupled to the nozzle adapter by a M25 thread.

3B – The safety breaking point is a last resort overpressure release mechanism.

3C – The nozzle adapter connects the extrusion tube to the nozzle with M25 and M8 threads respectively.

3D – The nozzle is interchangeable allowing for different sizes and types to be connected via the M8 thread attachment.

Safety Related Component

Safety Breaking Point – in the event of sustained overpressure the system has been designed to break apart to release the pressure. This is a last resort measure and under normal usage conditions should never be required.

Part 04 Motor

The self-enclosed DC drive motor connects to the auger via a thrust supported adapter assembly. The motor also features a current limiting device which provides a soft-start action on the motor. Maximum speed is not achieved until a few seconds after power on. The current limiting device on the 350 models is positioned at the back of the machine underneath the motor. Do not touch the device since during operation it will become very hot and will stay hot for a while after turning off the machine, this is normal.

The gear motor drive system has been designed to provide consistent power to the auger. If however the extrusion tube becomes blocked by foreign objects or by insufficient melt temperature or over temperature charring then the drive system will begin to stall. This can be recognised by a change in the sound the motor makes, i.e. a sudden lower tone or by stalling altogether. The motor power supply has been designed to cut-out if an over current condition exists, i.e. the motor is stalled. However this should be treated as a last resort only since repeated stalling of the motor may result in damage to the machine. **If the motor stalls it should be turned off immediately.**

The motor should be turned on only when the polymer has reached a sufficient molten state. The motor should be turned off again immediately if it sounds like it is “struggling” to rotate normally.

Part 05 Control Buttons

1 HEATER ON – Turns on the PID temperature controller, enables motor controls.

1 HEATER OFF – Turns off the heater, disengages motor control. Pressing the heater off buttons will effectively turn off both the heater and the motor since the motor circuit is only engaged whilst the heater is on.

2 MOTOR ON – This engages the motor drive circuit. If the machine has not been used for a while the inrush current to the motor circuit may trip the overcurrent protection system. This occurrence is normal and the system should be re-initiated by first pressing both OFF buttons and then turning the heater back on followed by motor on. If done quickly no noticeable temperature variation should occur whilst re-initiating the system.

The motor circuit cannot be engaged without first turning on the heater, this logic is to help prevent the motor from being engaged without first melting the polymer.

The controls are non-latching which means that if the mains power supply fails the system will turn off automatically; this prevents the system from starting up again after power is restored. Intermittent power surges (approx. less than 10 seconds) will not engage the shutdown system.

2 MOTOR OFF – This turns the motor drive circuit off.

Part 06 PID Temperature Controller

The digital temperature controller provides for setting the required melt temperature. A separate user manual is included and should be referred to when setting up the temperature. The factory default settings are usually appropriate for most users and should not be modified. Ensure that the temperature is set to the correct temperature directly after power up.

Part 07 Power Supply

The machine incorporates a self contained power supply with IEC connection and power switch. See the electrical specifications for details.

Part 08 Emergency Stop Button

The machine incorporates a self-latching E-stop which when activated will turn off both the heater and auger motor. To re-activate the machine the E-stop requires rotating to un-latch it before the normal start-up procedure can be followed again.

Part 09 Speed Control

The EX 350 model features a variable speed control. The speed adjuster is next to the motor on the rear of the machine; adjust speed by rotating the control knob.

Part 10 Auger Screw

The screw moves material from the hopper towards the melting zone and then through the nozzle. The screw has a diameter of 19mm and is optimised for pellet sizes from 1-6mm. In general however if the material can fit within the screw twists it should be transported towards the melting zone. The machine requires that material is constantly fed to the auger screw for it to extrude since the nozzle material is essentially pushed out through the nozzle by the material being pushed up from behind it.

Setup and Starting Extrusion

Before Starting – Safety Precautions

READ ALL INSTRUCTIONS BEFORE USING THE MACHINE KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

- **WARNING:** This appliance must be earthed.
- Before plugging in, check that the voltage on the rating label is the same as the main supply.
- To protect against electric shock, do not immerse any part of this product in water or other liquid.
- Unplug from outlet when not in use and before cleaning.
- Do not operate this appliance with a damaged cord or plug.
- Do not allow the cable to touch hot surfaces, or hang over the edge of a table or counter top.
- Do not use near combustible materials.
- Keep loose clothing, hair and jewellery away from machine, in particular the hopper and hot nozzle.
- Do not leave the machine unattended. **THIS IS AN ATTENDED APPLIANCE.**
- This appliance is not intended for use by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Any person with reduced physical, sensory or mental capabilities, or lack of experience and knowledge should be supervised at all times when using or dealing with this machine.
- Only use in well ventilated areas or with fume extraction.
- Do not use under cupboards or other low hanging objects, including curtains.
- Do not use outdoors.
- Do not operate appliance after the appliance malfunctions, or has been damaged in any manner.
- The nozzle can reach high temperatures, do not touch the nozzle or nozzle assembly during operation and allow to cool adequately before changing.
- Do not reach into the hopper with body parts or objects since crush and burn hazards are present.
- Consult the manufacturer for optimum extrusion temperature for each material used. Do not allow materials to burn, any fumes should be safely extracted.
- Ensure the temperature controller is setup correctly before adding materials to the hopper. Do not exceed the maximum temperature rating of 250°C.
- Allow time for the material to melt before turning on motor drive.
- It is the users' responsibility to ensure safe operation for all types of material being extruded.
- Place on a level and flat, stable surface before operating.
- Lift the machine only; do not drag.
- Do not block vents or push any object or limb through them.
- Extruded material must be allowed to cool before handling since it poses a burn risk.
- Do not allow extruded material to come close to or touch combustible or flammable materials.
- The machine is designed to be operated for short durations.
- If motor fails to turn when powered on then turn off immediately, wait for 5 minutes and try again.
- Consult the manufacturer data sheet for safe material usage for all materials, additives and colourants.

Instructions

Step 1a: Attach Nozzle with Nozzle Adapter

1. Ensure the system is off by pressing the **HEATER OFF** button. Also **isolate** the incoming power at the mains input.
2. Tighten the nozzle adapter with a large spanner (do not overtighten).
3. Screw in the required nozzle and fasten with an 8mm spanner (do not overtighten).

Step 1b: Changing a Nozzle or Nozzle Adapter

1. If nozzle/nozzle adapter has already been used then the material inside will need to be warmed before removal. The temperature should be set to the lowest temperature sufficient to soften the material inside the nozzle/nozzle adapter before it is removed. Be sure to use gloves since a burn hazard is present. Also be aware that material may ooze from the extrusion tube/nozzle/nozzle adapter once removed.

Step 2: Connecting Power

1. Connect an IEC C13 power cable to the IEC C14 power inlet and click the switch to the **on position**.

Step 3a: Loading Hopper – First Time

1. Carefully pour material in to hopper. Do not overfill or allow to spill around the edges.
2. Do not let fingers or any body part enter into the hopper.

Step 3b: Loading Hopper – Changing Material

1. Remove left over material by either scooping it out or with a suitable vacuum tool or airline. Alternatively extrude it through the system to remove it. If cleaning is required see *Step 5 – Cleaning Run*.

Step 4: Controls & Start-up Procedure

The auger motor cannot be started unless the heater is turned on first. The machine also features non-latching relay controls which mean the machine will not automatically re-start due to power removal and then power reinstatement. Short interval power glitches will not reset the control system however and the machine will continue to run.

4a: Heater Control

1. Turn on the **heater** by pressing the **ON** button
2. Allow a few seconds for the Temperature Controller to initialise.
3. Configure the Temperature Controller's parameters as per the separate instruction leaflet.

4. Notice that the default settings will often work for most applications but settings should be checked regardless. (For reference the thermocouple should be set to K type.
5. Once the temperature set point has been reached it may be necessary to **wait a further 5-20 minutes** to allow the heat to spread throughout the material and fully soften/melt the material.
6. **It is recommended that the temperature setting be lowered before setting up the parameters in order to avoid excessive heating.**

4b: Extrusion Motor Control

1. Ensure that the temperature has reached the appropriate set point as above.
2. Turn on the motor by pressing the **motor ON** button.
3. The motor should be immediately **turned off** if it sounds like it is stalling. Under normal running the pitch of the motor should remain fairly constant. **Running the motor while the material has not melted through may cause damage to the machine.**
4. Reasons the motor may struggle include; insufficient heat, not allowing the machine enough time to heat up, blockage or incompatible material.

4c: Extrusion Motor Inrush

When starting the extrusion motor a large inrush current may trip the internal protection circuit causing the machine to shut down. If this occurs then press the **heater off** and **motor off** buttons briefly before following the start-up procedure again. This occurrence is normal and if the machine is started promptly after a trip then no noticeable temperature drop should occur.

The following applies to the 350 model only.

The 350 model features an external current inrush circuit located near the motor at the back of the machine. This component gets very hot during operation, this is normal. Do not touch the inrush protection circuit. The inrush protection circuit should be allowed several minutes to cool-down before restarting, restarting whilst the inrush protection circuit is hot might cause machine shutdown since maximum inrush protection is only achieved when the circuit is cool.

The inrush circuit also provides a 'soft-start' mechanism which means the motor will start slowly and build up speed over a few seconds.

4d: Emergency Stop Control

The machine incorporates a self-latching E-stop which when activated will turn off both the heater and auger motor. To re-activate the machine after an E-stop the E-stop requires rotating to un-latch it before the normal start-up procedure can be followed again.

Step 4e: Speed Control

The 350 model features a variable speed control. The speed adjuster is next to the motor on the rear of the machine; adjust speed by rotating the control knob.

Step 5: Cleaning Run

When running the machine for the first time and when changing plastics it may be necessary to do a cleaning run (machine purge). This will clear any particles leftover from the manufacturing process and clear out any previous materials. Purging is not always necessary but if required HDPE pellets work very well since they tend to adhere to most polymers but do not adhere to the internal metalwork. Commercial purging products are also available.

1. To do this, remove the nozzle and run the machine until the extruded material is contaminant free.
2. If this does not sufficiently clean the extrusion tube then try removing the nozzle adapter and run the machine again. This method should push enough material through to effectively clean the auger and the extrusion tube.

Step 6: Filament Collection

1. To ensure a consistent tolerance, ensure that the filament is collected in a consistent way.
2. Collecting the filament at different fall distances from the nozzle will impact the size of the filament.
3. TIP: Collect filament on a flat surface approximately 2 feet below the nozzle. Allow the filament to fall with gravity and it will fall into circles itself.
4. TIP: The greater the fall distance from the nozzle to the surface the narrower the filament will be; this is because the weight of the extruded filament will pull down on the soft filament causing it to elongate.
5. TIP: It may be necessary to “guide” the filament using a rod and/or actively cool it.
6. **Caution:** The filament can remain very hot after extrusion. Observe handling precautions.
7. The **FilaFab Winder** is available to automatically wind filament directly to a spool, for more information please info@filafab.co.uk.

4. Maintenance and Troubleshooting

Isolate power supply and ensure machine is cool before carrying out maintenance work. Maintenance should be carried out by suitably experienced personnel only.

Non serviceable components

The power supply is a non-serviceable component; under no circumstances should it be opened since an electrical shock hazard could be present even when the machine is unplugged.

The temperature controller and electronics are non-serviceable and should be replaced immediately if damaged.

Mechanical components should be replaced if any signs of wear or damage are present.

For spares and repairs please contact **info@filafab.co.uk**.

Maintenance and Inspection Schedule

Every use

Check for signs of wear and tear, damage to the cord or controls.
 Check for signs of over-pressure or back flow.
 Check the Safety Break Point for signs of rupture or failure.

If any signs of damage are present stop using the machine and contact D3D Innovations.

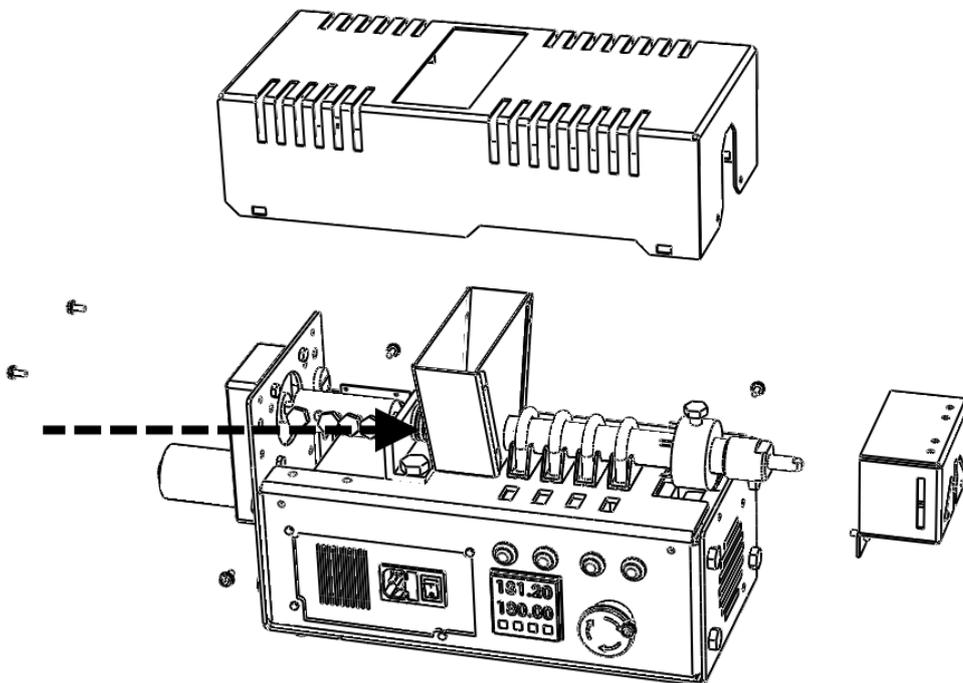
Every 8 hours of usage

Check the emergency stop operates.
 Check the on and off controls respond as expected.

If any device fails to operate stop using the machine and contact D3D Innovations.

Every 40 hours of usage

Grease thrust bearing
 Turn off machine and isolate supply by removing the power cable.
 Use a security key bit to open the enclosure and remove the nozzle shield.



Apply high temperature multipurpose grease to the thrust bearing. Clean any excess or residue.

Replace enclosure securely back on the machine and reposition the nozzle shield.

Spare Parts

#	PART DESCRIPTION	PART NUMBER
1	Extrusion Shaft	9970001
2	U-Clamp Set	9970002
3	Screw	9970003
4	PID Temperature Controller	9970004
5	Solid State Relay	9970005
6	Thrust Bearing	9970006
7	Aluminium Hopper	9970007
8	Nozzle Adapter	9970008
9	Nozzle 1.0mm	9970009
10	Nozzle 1.75mm	9970010
11	Nozzle 2.85mm	9970011
12	Thrust Plate	9970012
13	Power Supply Full Range	9970013
14	Base Frame	9970014
15	Frame Back	9970015
16	Frame Front	9970016
17	Motor Shaft Adapter	9970017
18	Heater Block Assembly	9970018
19	350 Motor	9970019
20	100 Motor	9970020
21	Enclosure Black	9970021
22	Enclosure Yellow	9970022
23	Enclosure Blue	9970023
24	Nozzle Shield Black	9970024
25	Nozzle Shield Yellow	9970025
26	Nozzle Shield Blue	9970026
27	Feet Pack	9970027
28	Green NO Button	9970028
29	Black NC Button	9970029
30	Emergency Stop Button	9970030
31	FilaFab Control PCB	9970031
32	Auger Guard	9970032
33	Speed Controller Mounting	9970033
34	Speed Controller PCB	9970034
35	100 DCDC PCB	9970035
36	350 DCDC PCB	9970036
37	EU Mains Cable	9970037
38	UK Mains Cable	9970038
39	US Mains Cable	9970039
40	Aus Mains Cable	9970040

Contact us for spares and replacements: info@filafab.co.uk

Troubleshooting

Heater does not turn on

- Check mains supply.
- Check power cord fuse.
- Ensure power switch turned to on position.

Motor does not turn on

- Ensure heater is turned on first.
- Internal fuse may be blown, contact D3D Innovations for diagnosis.

System turns off when I turned on the motor

- The inrush protection system may have been initiated. Re-start by pressing both black off buttons momentarily and then restarting the heater (green on button). The motor should now start up without issue. This typically occurs when turning the machine on after being off for a while.

Motor stalls or struggles to turn

- Ensure melt temperature reached.
- Material might be incompatible.

Motor turns slowly

- Increase speed control setting (if fitted).
- Ensure that the external inrush circuit (350 models) is not being cooled, it should get hot during operation, this is normal.

Temperature controller shows a fault or unexpected reading

- Check temperature controller settings are correct.
- This could indicate a fault with the temperature monitoring circuit, contact D3D Innovations for diagnosis.

Material stops extruding

- Ensure hopper is loaded with materials.
- Ensure materials are reaching auger, i.e. correct size to pass through the guard.
- This could indicate a sticky blockages where the material has stuck to the auger and will not allow more material to pass through. This can often be unblocked by loading hopper and applying pressure to the material using a block. This method forces material into the auger which can push the blockage out. Removal of the nozzle/nozzle adapter may assist in removing the blockage. Since this method requires action whilst the machine is on extreme caution should be taken and only carried out by experienced personnel.

For all other issues please contact info@filafab.co.uk

