

**DRAPER**

**EN**

Original Instructions  
Version 2  
May 2026

AIR DIE  
**GRINDER**

**83769**



**UK  
CA** **CE**

These are the original product instructions. Read the instruction manual in full and retain for future reference.

Please visit [drapertools.com/manuals](http://drapertools.com/manuals) for the latest version of this manual and the associated parts list, if applicable.

## 1.1 Product Reference

**User Manual for:** Air Die Grinder

**Stock No:** 83769

**Part No:** DAT-ADG

## 1.2 Revisions

**Version 1:** October 2017

First release

**Version 2:** May 2026

Please visit [drapertools.com/manuals](http://drapertools.com/manuals) for the latest version of this manual and the associated parts list, if applicable.

## 1.3 Understanding the Safety Content of This Manual



**WARNING!** – Situations or actions that may result in personal injury or death.



**CAUTION!** – Situations or actions that may result in damage to the product or surroundings.

**Important:** – Information or instructions of particular importance.

## 1.4 Copyright © Notice

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## 3.1 Intended Use

This compact die grinder is designed for grinding and polishing metal components especially in hard-to-reach areas. Fitted with a variable speed motor and rotating air inlet that prevents air-lines from kinking during use.

Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

Read this manual in full before attempting to assemble, operate or maintain the product and retain it for later use.

## 3.2 Specification

Stock No.	83769
Part No.	DAT-ADG
Collet Size	6mm (1/4")
Revolution Per Minute (No load)	20,000rpm
Max. Operating Air Pressure	90psi(6.2Bar)
Average Air Consumption	4cfm (113L/min)
Min. Air Line Hose Diameter	3/8" (10mm)
Air Inlet	¼" BSP
<b>Noise Emissions</b>	
Sound Pressure Level	88dB (A)
Sound Power Level	99dB (A)
Vibrations	2.9m/s <sup>2</sup>
Net Weight	530g

**Important:** The declared vibration total values and noise emissions values have been measured in accordance with a standard test method and may be used for comparing one tool with another. These values may also be used in a preliminary assessment of exposure.



**WARNING!** The vibration and noise emissions during actual use of the product can differ from the declared values depending on the type of work and the area upon which it is used. Before each use, estimate the likely exposure resulting from the actual conditions of use. Take into account all parts of the operation cycle in order to identify any safety measures required to protect the operator.

**Important:** Read all the Health and Safety instructions before attempting to operate, change accessories, maintain or repair this product. Failure to follow these instructions may result in injury or damage to the user, the product or the workpiece.


## 4.1 General Health and Safety Precautions

- **Only** qualified and trained operators should use or adjust the die grinder.
- **DO NOT** modify this die grinder. Modifications can reduce the effectiveness of safety measures and increase the risks to the operator.
- Retain the safety instructions for future reference and use by the operator.
- **DO NOT** use the die grinder if it has been damaged.
- Inspect the tool periodically to verify that the ratings and markings required are attached and legible.
- Keep bystanders away during operation.
- **ALWAYS** Wear appropriate personal protective equipment (PPE) including eye and hand protection.


## 4.2 Additional Safety Instructions for Compressed Air

 **WARNING! Compressed air can cause severe injury.**

- **ALWAYS** turn off and disconnect the air supply before changing accessories, making any adjustments to the product or leaving it unattended.
- **NEVER** direct this product towards yourself or others.
- Ensure that compressed air is not blocked by or in contact with any part of your body.
- **ONLY** use clean, dry and regulated compressed air.

 **WARNING! NEVER use oxygen, combustible gases or other bottled gases as a supply for this product. Use of these substances may cause the product to explode.**

- Draper Tools recommends the use of a whip hose between the tool and the air supply to reduce vibration.

 **WARNING! Whipping hoses can cause severe injury. Always check for and replace damaged or loose hoses and fittings.**

- Ensure that the product is compatible with the air supply before use.
- Ensure all connections are securely tightened.
- Where universal twist couplings (claw couplings) are used, lock pins must be installed and whip check safety cables must be used to safeguard against possible hose-to-tool or hose-to-hose failure.
- **DO NOT** exceed the maximum stated air pressure. The use of an inline water separator, lubricator and pressure regulator should be used to control the pressure of the air being supplied to the power tool.
- **DO NOT** obstruct the ability of the trigger to release once depressed.
- **NEVER** carry the tool by the air line.

## 4.3 Additional Safety Instructions for air Die Grinder Tools

 **WARNING!**

- Only insert and use tools of the correct shaft diameter.
- Use only sizes and types of accessories and consumables that are recommended by the die grinder manufacturer. **DO NOT** use other types or sizes of accessories or consumables.
- **NEVER** mount a grinding wheel, cut-off wheel or router cutter on a die grinder. A grinding wheel that bursts can cause very serious injury or death.
- **ALWAYS** use the correct grinding bit suitable for the material being ground.
- The maximum operating speed of the inserted tool/stone shall equal or exceed the rated speed marked on the tool.
- The permitted speed of the mounted point must be lowered due to the increase of the length of the shaft between the end of the collet and the mounting point (overhang). Make sure that the minimum gripping length of 10mm is observed.
- Beware of mismatching the insert tool shaft to the collet size. The shaft should be a snug fit before tightening the collet and should never require pressure to insert. Excessively loose shafts may result in the bit being thrown during use.

- Ensure that the grinding stone is correctly mounted and tightened before use. Then, run the tool unloaded for 30 seconds in a safe location to check the function and rotating direction. Stop immediately if there is excessive vibration or any other defects.
- Avoid direct contact with the inserted tool during and after use as it can be hot or sharp.
- Working in certain materials creates emission of dust and fumes, causing a potentially explosive environment.
  - Assess the need for personal protection and the provision for dust collection appropriate for the material to be worked on.
  - Direct the exhaust so as to minimise disturbance of dust in a dust-filled environment. Where dust or fumes are created, the priority shall be to control them at the point of emission.
  - Select, maintain and replace the consumable/inserted tool as recommended in the instructions, to prevent an unnecessary increase in dust or fumes.
- This die grinder is not intended for use in potentially explosive atmospheres and is not insulated against contact with electric power sources.
- Ensure any sparks or debris generated **DO NOT** create a hazard or pose a threat of ignition to stored gas or fluid.
- Be aware that failure of the workpiece or accessories, or even of the inserted tool itself can generate high-velocity projectiles.
- Beware of excessive vibration levels due to improper mounting or damaged insert tool. Stop immediately and rectify the cause.
- The insert tool and output shaft will run on after the trigger has been released.
  - **ALWAYS** ensure the grinder has stopped rotating before placing on the workbench or on the floor.
- Avoid contact with the rotating spindle and inserted tool to prevent cutting of hands and other body parts.
  - Wear close fitting clothing, remove jewellery and tie long hair back to prevent the risk of entanglement.
- **ALWAYS** wear impact-resistant eye protection during operation of the die grinder or when changing accessories on the tool. The grade of protection required should be assessed for each use. Gloves and protective clothing are also recommended.

- Ensure that the workpiece is securely fixed.
- Disconnect the die grinder from the energy supply before fitting or changing the inserted tool or accessory or before servicing.

#### 4.4 Residual Risk

- The safety instructions in this manual cannot account for all possible conditions and situations that may occur. Exercise common sense and caution when using this product and protect against any additional conceivable risks.

# 5. Identification and Unpacking

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Carefully remove the product from the packaging and examine it for any signs of damage that may have occurred during shipment. If any part is damaged or missing, do not attempt to use the product. Please contact the Draper Helpline; contact details can be found at the back of this manual.

## 5.1 Product Overview



- 1 Trigger safety lever
- 2 Trigger
- 3 360° adjustable exhaust
- 4 4 speed selector
- 5 1/4 " BSP (female air inlet)
- 6 Soft grip

- 7 Body
- 8 Output shaft
- 9 6mm Collet
- 10 Collet nut
- 11 Air line coupling screw adaptor
- 12 2 x Open ended collet spanners

## 5.2 Packaging

Keep the product packaging for the duration of the warranty period for reference should the product need to be returned for repair.

**WARNING! Keep packaging materials out of reach of children. Dispose of packaging correctly and responsibly and in accordance with local regulations.**

Please visit [drapertools.com](http://drapertools.com) for our full range of accessories and consumables.

## 6.1 Preparing the Air Supply for use

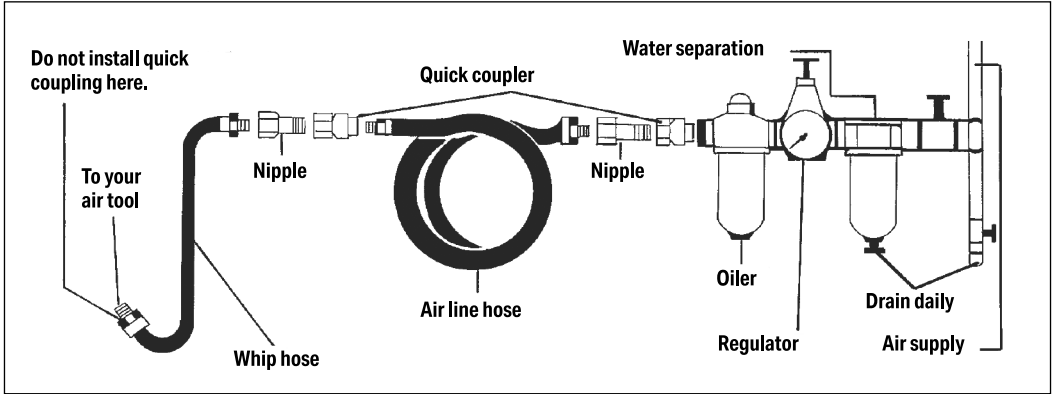


Fig. 1

**Important:** Before preparing or adjusting this product, read and understand all the safety instructions listed in this manual.

**Important:** always disconnect from the air supply before assembling, carrying out adjustments, servicing or maintenance.

- **This air tool operates at a max. pressure of 6.2bar (90psi).**
- The compressed air system must be controlled by a combination pressure regulator, in-line lubricator and moisture filter. This will ensure a constant supply of dry air at all times, provided it is properly maintained.
- **Important:** Always check the machine operating pressure before use.
- Water in the compressor tank may cause considerable corrosion to air tools; the compressor should be drained daily to avoid excessive water in the air supply. Dirty or wet air can significantly shorten the lifespan of the product.
- When using an air tool with a hose over 25ft long, Draper Tools recommends increasing the bore of the hose to the next largest available size (i.e. increase 3/8" to 1/2"). This will ensure adequate pressure and volume of air to power the tool.

## 6.2 Connection to the Air Supply - Fig.2

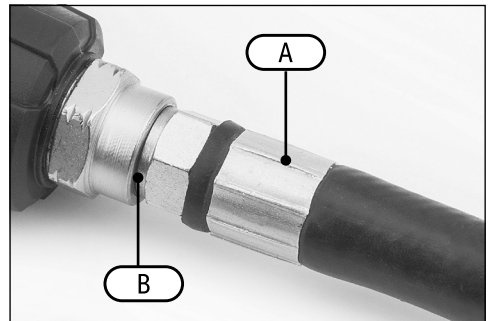


Fig. 2

**Important:** it is recommended to use a 1/4" BSP male-threaded thread whip hose (not supplied) to connect the tool to the air line in order to reduce vibration.

1. Wrap a length of PTFE tape around the coupling thread (B) of the whip hose (A).
2. Remove the bung from the inlet connector (5) and attach the air line coupling or whip hose to the air inlet. Check that the connection is secure and airtight.

# 7. Operating Instructions

**Important:** Before operating this product, read and understand all the safety instructions listed in this manual.

## 7.1 Inserting A Grinding Point/Tool Fig.3

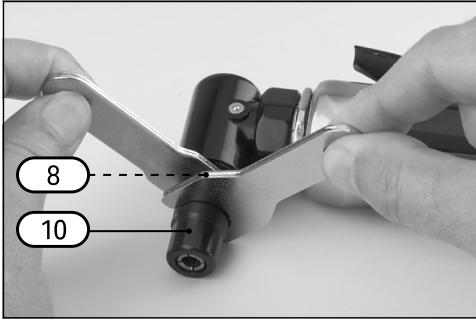


Fig. 3

**WARNING!** Select the grinding point appropriate for the application, speed rated to the die grinder and with the correct shaft diameter for the collet.

- Inspect the grinding point before use. **DO NOT** use chipped, cracked or otherwise defective products.
- 1. Hold the output shaft (8) with the smaller spanner and loosen the collet nut (10) with the larger spanner.
- 2. Insert the grinding point shaft observing the minimum gripping length of 10mm.
- 3. Secure the grinding point/tool by tightening the collet nut fully.

**Note:** Never tighten the collet nut without an insert tool in the collet as damage will occur. Before storage remove inserted tool to prevent distortion of the collet.

**Note:** Always wear eye protection.

**WARNING!** Never attempt to install cutting off wheels or router bits.

## 7.2 Trigger Operation – Fig. 4

- To prevent unintentional starting, the die grinder requires two separate actions to operate the tool.

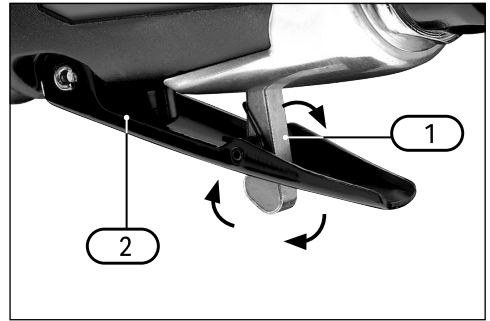


Fig. 4

- Push the trigger release lever (1) forward. This then allows the trigger (2) to be pushed towards the body of the grinder.

## 7.3 Air Flow/Speed Selector – Fig.5

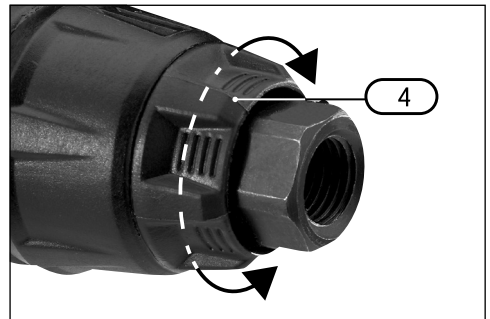


Fig. 5

- Rotate the selector (4) to adjust the speed to the most appropriate for the application.

## 8. Maintenance and Troubleshooting

 **WARNING! ALWAYS ensure that the tool is disconnected from the air supply and that the air supply is switched off before attempting to adjust or maintain this product.**

### 8.1 General Maintenance

- Disconnect the air line and remove the air line coupling or whip hose when storing the product.
- Wipe the grinder clean and remove any obstructions from the exhaust (3) before storage.
- **Important:** Lubricate the tool by pouring a few drops of oil into the air inlet
- ISO grade 22–32 (SAE grade 5W–15W) monograde oil should be used in this air tool. During use, the oil must be constantly supplied to the equipment to ensure complete lubrication and optimum performance.
- When not in use store in a dry clean place out of the reach of children.

### 8.2 Troubleshooting

Problem	Possible Cause	Remedy
Tool will not operate. Slight airflow from exhaust and spindle turns freely.	Motor seized with dirt.	<ul style="list-style-type: none"><li>• Check air inlet if free from dirt and debris.</li><li>• Pour 1.5ml lubricating oil into air inlet.</li><li>• Operate trigger in short bursts.</li><li>• Disconnect air supply and turn spindle by hand. Reconnect air supply.</li><li>• If motor fails contact Draper Tools for advice.</li></ul>
Tool runs slowly. Air flows freely from exhaust.	Rotor vane seized.	<ul style="list-style-type: none"><li>• Pour 1.5ml lubricating oil into air inlet.</li><li>• Operate trigger in short bursts.</li><li>• If still not functioning contact Draper Tools for advice.</li></ul>
Spindle seized.	Motor vane broken.	<ul style="list-style-type: none"><li>• Contact Draper Tools for service advice.</li></ul>
Tool will not shut off.	O' ring throttle valve dislodged from inlet valve.	<ul style="list-style-type: none"><li>• Replace 'O' ring.</li><li>• Contact Draper Tools for service advice.</li></ul>

- For spare parts, servicing, and repair and replacement options, please contact the Draper Tools Product Helpline for details of your nearest authorised agent.
  - Draper Tools will endeavour to hold any spare parts, if applicable, for seven years from the date that it sells the final matching stock item.
  - Any servicing or repairs carried out by unauthorised personnel or installation of spare parts not supplied by Draper Tools will invalidate your warranty.
  - At the end of its working life, dispose of the product responsibly and in line with local regulations. Recycle where possible.
- 6 months from date of purchase visit [drapertools.com/warranty](http://drapertools.com/warranty) for full details.

# 11. Explanation of Symbols



Read the instruction manual



Direction of rotation



**Warning!**  
Wear face mask and safety glasses



**Warning!**  
Wear ear defenders



Wear protective gloves



**Warning!**  
Risk of crushing



European conformity



UK Conformity Assessed

## Contact Details

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Please contact the Draper Tools Product Helpline for repair and servicing enquiries.