

DRAPER

EN

Original Instructions
Version 2 - August 2025

AIR **ANGLE GRINDER**

83953



**UK
CA** **CE**

1. Preface

These are the original product instructions. This document is part of the product; retain it for the life of the product, passing it on to subsequent holders. Read this manual in full before attempting to assemble, operate or maintain this product.

This Draper Tools manual describes the purpose of the product and contains all the necessary information to ensure its correct and safe use. Following all the instructions and guidance in this manual will ensure the safety of both the product and the operator and increase the lifespan of the product.

All photographs and drawings within this manual are supplied by Draper Tools to help illustrate correct operation of the product.

Every effort has been made to ensure the information contained in this manual is accurate. However, Draper Tools reserves the right to amend this document without prior warning. Always use the latest version of the product manual.

1.1 Product Reference

User Manual for: Air Angle Grinder

Stock No: 83953

Part No: DAT-AAG

1.2 Revisions

Version 1: November 2017

First release

Version 2: August 2025

As our manuals are continually updated, always ensure that the latest version is used.

Please visit 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. Product Introduction

3.1 Intended Use

This air angle grinder is designed for use with grinding wheels/discs to grind metals, removal of rust and paint and for other sanding and polishing applications. Intended for use with a suitable compressed air supply.

NOT suitable for use with cutting discs.

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.	83953
Part No.	DAT-AAG
Disc Size	100mm (4")
Bore Size	16mm
Spindle Size	M10 X 1.5mm
Speed (no load)	11,000rpm
Max. Air Pressure Operation	90psi (6.2bar)
Average Air Consumption	184L/min (6.5cfm)
Minimum Air line (Inner Diameter)	10mm (3/8")
Air Inlet Connector	1/4" BSP
Noise emissions	
Sound pressure level (LpA)	87dB (A)
Sound power level (LWA)	98dB (A)
Vibration level	2.43m/s ²
Net weight (air tool only)	1.67kg

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.

4.1 Health and Safety Instructions for this Angle Grinder



WARNING! Read and understand the safety instructions before installing, operating, repairing, maintaining, replacing accessories, or working near the grinder. Failure to do so can result in serious bodily injury.

General Safety Instructions

- Only trained and authorised personnel should install, adjust or operate the grinder.
- **DO NOT** modify this grinder.
 - Modifications can reduce the effectiveness of safety measures and increase the risk of injury.
- Retain these instructions for the life of the product and pass them on with the tool to any future operators.
- **DO NOT** use this grinder if it has been damaged.
- Regularly inspect the grinder to ensure that all safety markings remain legible.
 - Contact Draper Tools if the safety markings need to be replaced and **DO NOT** use the tool.

Projectile Hazards

- Be aware that failure of the workpiece, accessories or tool itself may generate high-velocity projectiles.
- **ALWAYS** wear impact-resistant eye protection during operation of the grinder and assess the grade of protection required with each use.
- When working overhead, **ALWAYS** wear a safety helmet.
- Carefully assess the risk to others before every operation and ensure that all bystanders are clear of the work area or equipped with suitable protective equipment.
 - Keep this product out of reach of children at all times.
- **ALWAYS** ensure that the workpiece is firmly gripped by a clamp or vice; **NEVER** hold the workpiece by hand.
- Ensure that the grinding wheel/disc is safely fitted to the grinder.
- Check that the maximum operating speed (RPM) is equal or greater than the rated speed of the spindle.
- **NEVER** use without the safety guard fitted and inspect regularly.
 - Ensure that the guard is in place, in good condition and correctly mounted.

- Check the speed of the grinder is not higher than marked on it regularly. These speed checks should be carried out without the abrasive product mounted and in accordance with the manufacturer's instructions supplied.
- Check that the specified flanges are used and are in good condition, e.g. free from cracks and burrs.
- Check that the spindle and spindle threads are not damaged or worn.
- Ensure that sparks and debris resulting from use **DO NOT** create a hazard.
- Disconnect the grinder from the energy supply before changing abrasive accessories and servicing the tool.

Entanglement Hazards

- Keep loose clothing, gloves, hair and jewellery well away from the grinder at all times.
 - Entanglement in the rotating parts can cause significant injury.

Operating Hazards

- This grinder is designed for use with grinding wheels/discs only. **DO NOT** use this grinder with cutting discs.
- Avoid contact with the rotating spindle and mounted wheel/disc to prevent cutting of hands and other body parts.
- Wear suitable protective gloves to guard against injury from cuts, abrasion and heat.
- If the workpiece becomes hot during operation, stop the tool and allow the material to cool before continuing.
- Hold the tool correctly and firmly and brace yourself against sudden movements, keeping both hands available.
- Maintain good balance and secure footing at all times while operating the tool.
- Release the trigger lever immediately if the air supply is interrupted.
- **ONLY** use lubricants recommended by Draper Tools.
- **ALWAYS** wear protective safety glasses while using this tool.
 - It is also recommended to wear protective gloves and other protective clothing appropriate to the specific conditions of the operation.
- **ALWAYS** allow the tool to come to a complete stop and disconnect the air supply before handling or adjusting the grinder.

4. Health and Safety Information

- **DO NOT** use the grinding wheels/discs for side grinding. **DO NOT** use grinder above the maximum specified speed of an abrasive product.
- Grinding sparks can ignite clothing and cause severe burns. **DO NOT** allow sparks to land on clothing and wear fire retardant clothing and have a bucket of water nearby.

Repetitive Motion Hazards

- When operating a grinder frequently or for extended periods, the operator may experience discomfort in the hands, arms, shoulders, neck and other parts of the body.
- While using the grinder, adopt a comfortable posture while maintaining secure footing and avoiding awkward or off-balance positions.
 - Change posture and operating positions regularly during extended use to help avoid discomfort and fatigue.
- **DO NOT** ignore symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness or burning sensations.
 - If these symptoms occur, stop using the tool and consult a qualified health professional.

Accessory Hazards

- **ALWAYS** disconnect the grinder from the air supply before fitting or changing accessories.
- Avoid direct contact with the fitted wheel/disc during and immediately after operation as it may become hot during use.
- **ONLY** use accessory types and sizes recommended by Draper Tools.
- Ensure that the dimension of the abrasive product is compatible with the grinder and fits the spindle.
- Ensure that the thread type and size of the abrasive product exactly matches the spindle thread type and size.
- Inspect the abrasive product before use. **DO NOT** use abrasive products that could have been dropped or which are chipped, cracked or otherwise defective.
- Ensure that the abrasive product is correctly mounted and tightened before use and run the grinder at no load speed for at least one minute in a safe position. Stop immediately if excessive vibrations or other defects are noted.
- Store and handle the abrasive products with care in accordance with the manufacturer's instructions.

Workplace Hazards

- Stay alert for surfaces that may become slippery as a result of use of this tool and for trip hazards caused by the air line.
- This grinder is not suitable for use in potentially explosive atmospheres and is not insulated against contact with electric power.
- Ensure that there are no electrical cables, gas pipes, etc. present in the workpiece that may cause a hazard if damaged by the tool.

Dust and Fume Hazards

- Dust and fumes generated by grinding operations can cause ill health (e.g., cancer, birth defects, asthma and/or dermatitis).
 - Perform a risk assessment and implement any appropriate controls for identified hazards before performing any operation.
 - Any risk assessment performed must include dust created by use of the tool and disturbance of any existing dust.
- Operate and maintain the grinder appropriately to minimise the dust or fume emissions.
- Direct the exhaust so as to minimise disturbance of existing dust in dusty environments.
- Where dust or fumes are created, priority must be given to controlling them at the point of emission.
- All integral features and accessories for the collection, extraction or suppression of airborne dust or fumes must be correctly used and maintained in accordance with the manufacturer's instructions.
- Select, maintain and replace the consumable/inserted tool as recommended in the manual to prevent any unnecessary increase in the emission of dust or fumes.
- Use appropriate respiratory protection in accordance with local occupational health and safety regulations.

Noise Hazards

- Exposure to high noise levels can cause permanent hearing loss and other problems.
 - Perform a risk assessment and implement any appropriate controls for identified hazards before performing any operation.
- Implement appropriate controls, such as dampening materials, to prevent the workpiece from "ringing" during operation.
- Use appropriate hearing protection in accordance with local occupational health and safety regulations.

- Operate and maintain the grinder appropriately to prevent unnecessary increase in noise emissions.

Vibration Hazards

- Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
- Wear warm clothing when working in cold conditions and keep your hands warm and dry.
- If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the grinder and consult a qualified health professional.
- Operate and maintain the grinder appropriately to prevent unnecessary increase in vibration emissions.
- **DO NOT** allow the inserted to chatter on the workpiece.
- Select, maintain and replace the consumable/ inserted tool as recommended to prevent an unnecessary increase in vibration levels.
- Support the tool in a stand, tensioner or balancer if possible.
- The risks from vibration hazards are increased when grip force on the tool is higher. – Hold the grinder with a light but safe grip, keeping in mind that your grip may need to be altered to react to unexpected forces.
- Use blotters where supplied with bonded abrasive products.

4.2 Additional Safety Instructions for Compressed Air



WARNING!

Compressed air can cause severe injury.

- **ALWAYS** turn off and disconnect the air supply before 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.
- **DO NOT** obstruct the ability of the trigger to release once depressed.
- **NEVER** carry the tool by the air line.

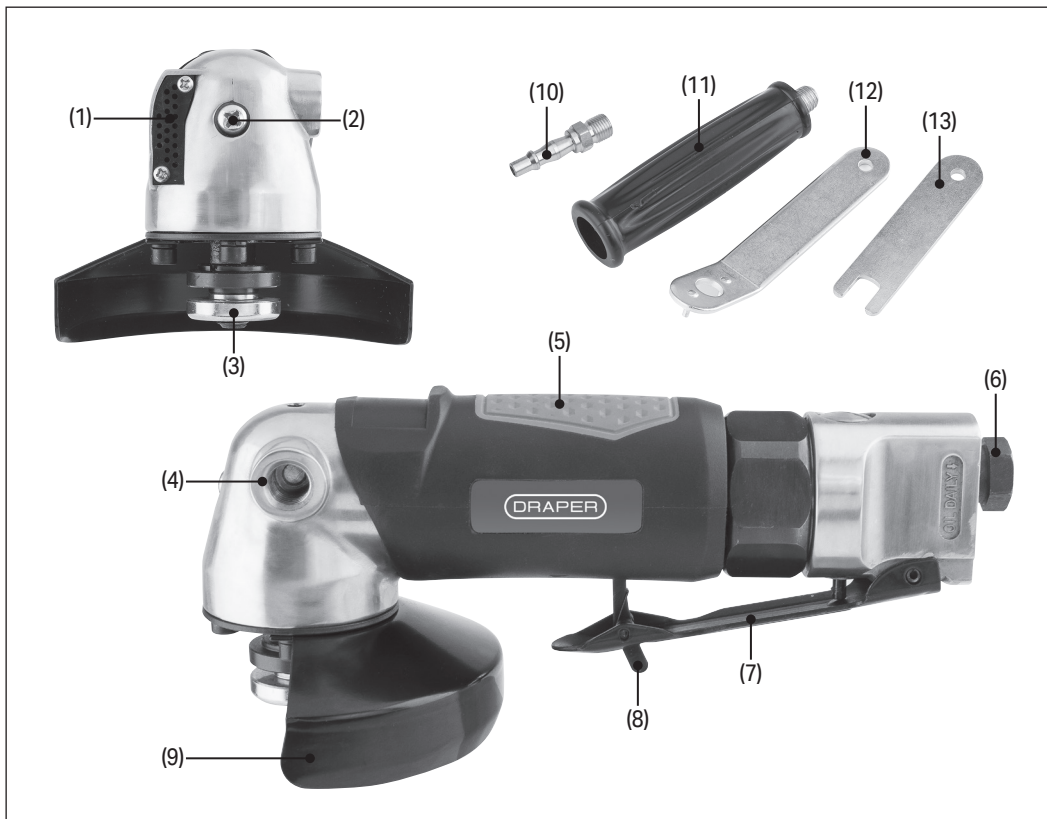
4.3 Residual Risk

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

5.1 Product Overview

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.



- | | |
|-------------------------------|--------------------------------------|
| (1) Front exhaust | (8) Trigger safety lever |
| (2) Grease point | (9) Adjustable safety guard |
| (3) Output shaft flange nut | (10) Air line coupling screw adaptor |
| (4) Side handle thread | (11) Side handle |
| (5) Low vibration soft grip | (12) Pin spanner |
| (6) 1/4" BSP female air inlet | (13) Shaft spanner |
| (7) Trigger | |

5.2 Packaging

Keep the product packaging for the duration of the warranty period in case the product needs 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.

6. Preparation Instructions

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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.

6.1 Preparing the Air Supply for use

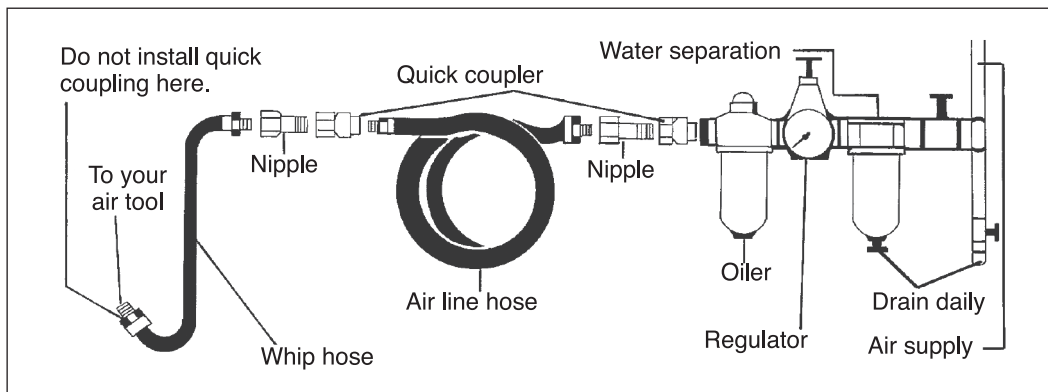


Fig. 1

- **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 Connecting to the Air Supply – 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 (B) around the air line coupling (A) or the whip hose thread.
2. Remove the bung from the inlet connector (6) and attach the air line coupling or whip hose to the air inlet. Check that the connection is secure and airtight.

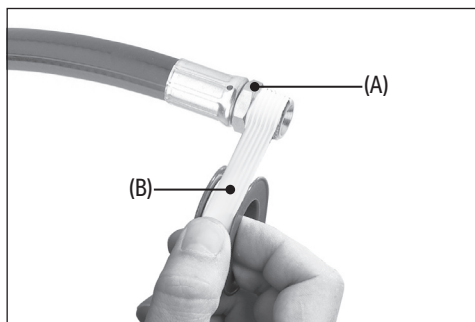


Fig. 2

6. Preparation Instructions

6.3 Reposition the Guard – Fig.3

- The safety guard can be rotated to the required angle:
 - Use a hex. key to remove the four bolts (9.1).
 - Rotate the guard (9) in 45° increments to the required angle.
 - Refit the guard.



WARNING! NEVER operate this tool without the guard securely fitted.

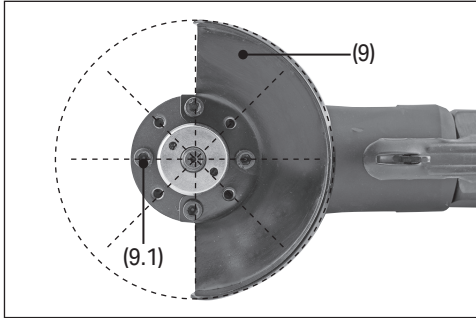


Fig. 3

6.4 Installing Grinding Wheel/Disc – Fig.4

- Remove the flange nut (3) from the output shaft using the spanners supplied (12) and (13).
- Place the shaft spanner (13) between the guard bolts onto the flat section of the shaft.
- Locate the pin spanner (12) over the end of the output shaft and locate the two pins into the holes on the top of the flange nut.
- Remove the flange nut and fit a suitable grinding wheel.
- Screw the flange nut onto the grinding wheel by hand then tighten with the spanners.

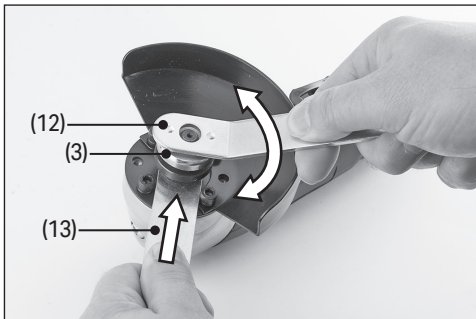


Fig. 4



WARNING!

- **ONLY use grinding wheels that have a RPM rating equal or greater than the tool.**
- **This tool is designed for use with grinding discs only.**
- **DO NOT use with cutting discs.**
- Check the expiry date prior to mounting an abrasive wheel. **DO NOT** use if past the expiry date.
- **ALWAYS** select the correct accessory for the intended application.

6.5 Attaching Side Handle - Fig.5

For safety ALWAYS use the side handle (11) when using this grinder.

Screw the side handle (11) into the threaded aperture (4).

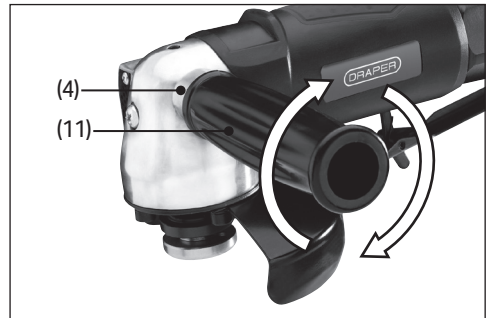


Fig. 5

Important: Before operating this product, read and understand all the safety instructions listed in this manual. Ensure that the product is fully assembled and correctly prepared for use.

7.1 ON/OFF Trigger – Fig.6

- To prevent unintentional starting the angle grinder requires two actions to start the tool.
- Push the trigger safety lever (8) forward to release. This then allows the trigger (7) to be pushed towards the body of the grinder.

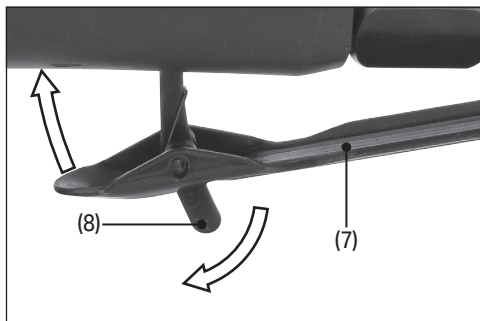


Fig. 6

7.2 Basic Operation

- When performing grinding operations maintain an angle of approximately 30° between the worksurface and the disc face.
- **ONLY** use abrasives specifically designed for grinding.

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 front exhaust (1) before storage.
- **Important:** Lubricate the mechanism by pouring a few drops of air tool oil into the air line coupling.

- 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.
- Lubricate the gears regularly. Remove the grease point screw (2) and insert grease into the gearbox void using a grease gun.

8.2 Troubleshooting

Problem	Possible Cause	Remedy
Tool not operating	Air pressure is too low.	Check that air line is connected securely and not damaged.
	Trigger mechanism malfunctioned.	Pour a little air tool oil into the air line inlet and squeeze the trigger several times.
Tool operates with reduced power	Air line is obstructed.	Switch off and detach the air line. Clean and remove any obstructions.
	Air pressure is too low.	Check pressure is set correctly and check for loose connections.
	Rotor vane seized.	Pour lubricating oil into air inlet and operate trigger several times.
Spindle does not turn	Motor vane is broken.	Contact Draper Tools for advice.
Tool will not shut off	'O' ring throttle valve is broken or dislodged.	Replace the 'O' ring - Contact Draper Tools for advice.

9. Spares, Returns and Disposal

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.

- **DO NOT** abandon it in the environment.



10. Warranty

6 months from date of purchase -
Visit [drapertools.com/warranty](https://www.drapertools.com/warranty) for full details.

Where the tool has been hired out the warranty period is 90 days.

This warranty does not cover any other consumable parts, normal wear & tear, damage, misuse, careless or unsafe handling, alterations, accidents or repairs attempted other than by authorised Draper warranty repair agent.

11. Explanation of Symbols

	Read the instruction manual		Average air consumption (cfm)
	Wear safety glasses		Average air consumption (L/min)
	Wear ear defenders		Air line size
	Wear protective gloves		Air inlet connector size
	Do not abandon in the environment		Net weight (air tool only)
	Warning! Risk of crushing		European conformity
	Warning!		UK Conformity Assessed
	Direction of rotation		
	Disc size		
	Speed (no load)		
	Operating air pressure (psi)		
	Operating air pressure (bar)		

Contact Details

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