

# Blamke®

## air



## 4" ANGLE GRINDER

MODEL NO: CAT52

PART NO: 3110685

## OPERATING & MAINTENANCE INSTRUCTIONS



GC0414

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## **INTRODUCTION**

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Thank you for purchasing this CLARKE Grinding Tool.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

Your tool has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local CLARKE dealer.

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## **GUARANTEE**

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This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

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# GENERAL SAFETY RULES

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CAUTION: FAILURE TO FOLLOW THESE PRECAUTIONS COULD RESULT IN PERSONAL INJURY, AND/OR DAMAGE TO PROPERTY.

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## WORK ENVIRONMENT

1. Keep the work area clean and tidy.
2. Dress appropriately - Do not wear loose clothing or jewellery. Tie long hair out of the way.
3. Keep children and visitors away - Do not let children handle the tool.
4. Do not operate the tool where there are flammable liquids or gases.

## USE OF POWER TOOLS

1. Stay alert and use common sense - do not operate the air tool when you are tired or under the influence of alcohol, drugs or medication.
2. Always wear eye protectors when using the tool - Eye protectors must provide protection from flying particles from the front and the side.
3. Always wear ear protectors when using the air tool.
4. Do not overreach - Keep proper footing and balance at all times.
5. Never use oxygen, CO<sup>2</sup>, combustible gases or any type of bottled gas as a source of power for the tool.
6. Do not connect the air supply hose with your finger on the trigger.
7. Do not exceed the maximum pressure for the tool of 90 psi / 6.2 bar.
8. Check hoses for leaks or worn condition before use, and ensure that all connections are secure.
9. Do not use the tool for any other purpose than that described in this manual.
10. Keep the air supply hose away from heat, oil and sharp edges.
11. Do not fit the tool to any stand or clamping device that may damage it.
12. Do not carry out any alterations or modifications to the tool.
13. Always disconnect from the air supply when:
  - Performing any maintenance.
  - The tool is not in use.

- The tool will be left unattended.
  - Moving to another work area.
  - Passing the tool to another person.
14. Never use the tool if it is defective or operating abnormally.
  15. The tool should be serviced at regular intervals by qualified service personnel.
  16. Avoid damaging the tool for example by applying excessive force of any kind.
  17. Always maintain the tool with care. Keep it clean for the best and safest performance.
  18. Quick change couplings should not be located at the tool. They add weight and could fail due to vibration.
  19. Do not force or misuse the tool. It will do a better and safer job at the rate for which it was designed.
  20. Do not remove any labels. Damaged labels should be replaced.
  21. This tool vibrates with use. Vibration may be harmful to your hands or arms. Stop using the tool if discomfort, a tingling feeling or pain occurs. Seek medical advice before resuming use.

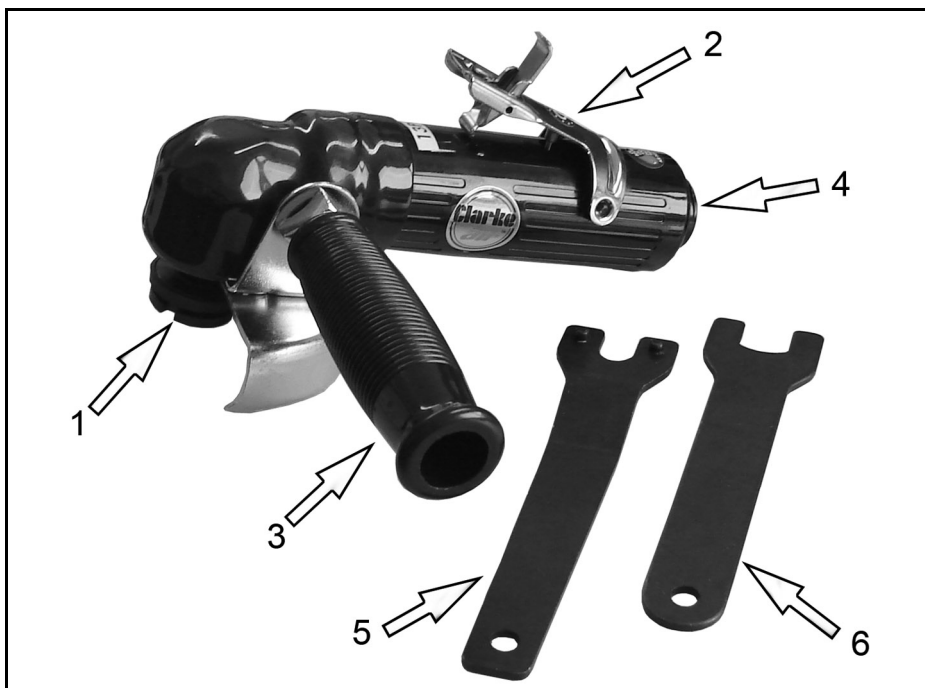
## **USE OF GRINDING DISCS**

1. Never use cracked or chipped grinding discs.
2. Never use non-reinforced grinding discs.
3. Never use the tool without disc guard in place.
4. Only use for grinding operations.

## **TRANSPORTATION AND STORAGE**

1. Never carry the tool by the air supply hose.
2. Never carry the tool with your finger on the trigger.
3. When not in use the tool must be disconnected from the air supply and stored in a dry place out of the reach of children (preferably in a locked cabinet).
4. Avoid storing the tool in environments where the temperature is below 0°C.

## OVERVIEW



When opening the carton for the first time, check against the following list that all the items are present. Any damage or deficiency should be reported to your CLARKE dealer immediately.

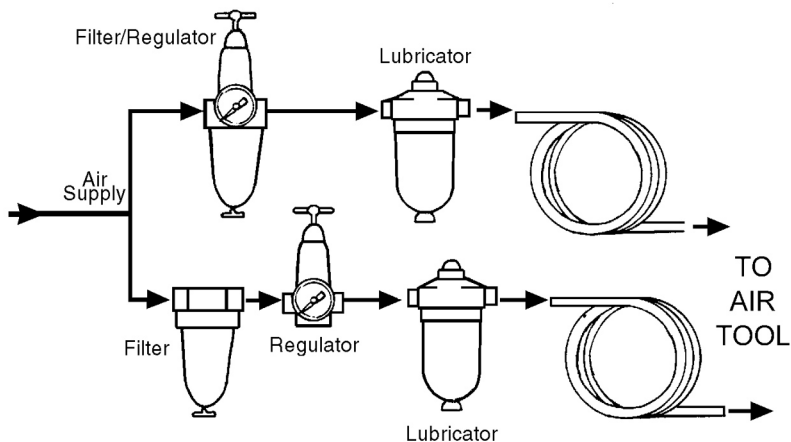
NO	DESCRIPTION	NO	DESCRIPTION
1	Disc Retaining Washer	4	Air Inlet
2	Trigger	5	Wrench with pins
3	Side Handle	6	Wrench without pins

# COMPRESSED AIR REQUIREMENTS



**WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLY.**

- Use only clean, dry, regulated compressed air as a power source.
- Air compressors used with the tool must comply with the appropriate European Community Safety Directives.
- A build-up of moisture or oil in the air compressor will accelerate wear and corrosion in the tool. ensure any moisture is drained from the compressor daily and the inlet filter is kept clean.
- If an unusually long air hose is required, (over 8 metres), the line pressure or the hose inside diameter may need to be increased.
- The air hose must be rated at least 150% of the maximum operating pressure of the tool.



- A typical air line layout is shown above. If an automatic in-line filter/regulator is used, it will keep the tool in good condition, but should be regularly checked and topped up with oil. SAE 10 oil should be used, and the lubricator adjusted to approx 2 drops per minute.
- Never exceed the maximum operating pressure for the tool. It is recommended that air pressure to this tool does not exceed 90 psi at the tool when running. Higher pressures and unclean air will shorten the life of the tool due to faster wear and is a possible safety hazard.

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## BEFORE USE

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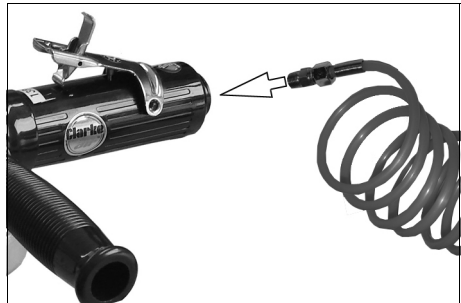


**WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF AIR COMPRESSORS AND COMPRESSED AIR SUPPLY.**

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**NOTE:** Ensure the compressor is turned off.

1. Remove the blanking plug from the air inlet of the tool.
2. If required, connect an in-line mini oiler to the tool.
  - A mini oiler helps to prolong the life of the air tool.
3. If a mini-oiler is not being used, run a few drops of oil through the tool before use. It can be entered through the air inlet or via the hose at the nearest connection to the air supply.
4. Connect a suitable hose to the air inlet as shown.
5. Connect the other end of the hose to the compressor.
6. Your air tool is now ready for use.



You can fit a whip hose with a quick fit coupling if required (available from your Clarke dealer).

### FITTING THE SIDE HANDLE

1. Screw the side handle to the main body as shown.



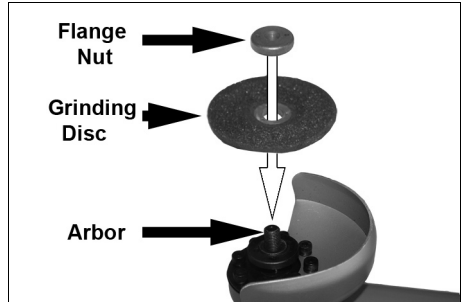
## FITTING THE GRINDING DISC



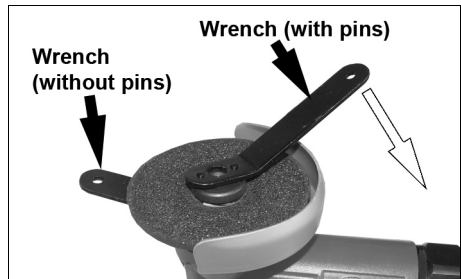
**WARNING: ENSURE THE AIRLINE IS DISCONNECTED FROM THE TOOL.**

**WARNING: WHEN FITTING DISCS, ALWAYS INSPECT FOR DAMAGE ETC, NEVER USE GRINDING DISCS IF THEY ARE CHIPPED OR CRACKED.**

1. Remove the flange nut.
2. Fit the grinding disc, ensuring the hole in the disc sits snugly over the shoulder on the arbor.
3. Refit the flange nut, finger tight.
  - Ensure the shoulder on the flange nut fits inside the hole on the grinding disc.



4. Using the wrenches supplied, fit the wrench (without pins) onto the grinder arbor to prevent it from turning.
5. Fit the other wrench (with pins) into the two holes in the flange nut. Hold both wrenches firmly and tighten by turning the wrench with pins in a clockwise direction.
6. Remove the wrenches before use.



## REPLACEMENT DISCS

- Replacement cutting discs are available from your Clarke dealer. (Part number 6470700).



## USING THE ANGLE GRINDER

1. Connect the airline and turn the air supply on.
2. Hold firmly using both hands, right hand on the motor body and your left hand on the handle.
3. To switch on, push the throttle lock forward, at the same time depress the throttle.
  - Allow the grinder to reach full speed and stabilise before continuing.
4. Gently offer grinding disc to work piece, DO NOT FORCE IT, allow the grinder to do the work for which it was designed.



***IMPORTANT: Always keep the disc guard square to work the face, also DO NOT use side of disc for grinding, this could cause the disc to shatter resulting in personal injury.***

5. When finished grinding, with the motor still running take the disc away from the work, release the throttle and wait for the grinder to stop before carefully putting it down.
  - The tool will continue to rotate for a short time after the trigger has been released.

## DISCONNECTING THE AIR SUPPLY

1. Do not disconnect the air supply hose until the compressor has been shut down and the compressed air released.
2. Refer to the compressor instruction manual for the procedure to shut down and release the compressed air.
3. Once the pressure has been released, disconnect the air supply hose from the tool.

# TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
Tool runs at normal speed but slows down under any load.	<ol style="list-style-type: none"> <li>1. Excessive pressure on drill.</li> <li>2. Motor parts worn.</li> <li>3. Worn or sticking mechanism due to lack of lubricant.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce the force applied to the tool.</li> <li>2. Return to Clarke dealer for repair.</li> <li>3. Drip air tool lubricating oil into air inlet. Allow oil to soak moving parts before using.</li> </ol>
Tool runs slowly. Air flows weakly from exhaust.	<ol style="list-style-type: none"> <li>1. Motor parts jammed with gum/dirt.</li> <li>2. Regulator in closed position.</li> <li>3. General airflow blocked by dirt.</li> </ol>	<ol style="list-style-type: none"> <li>1. Examine inlet air filter for cleanliness.</li> <li>2. Adjust regulator to open position.</li> <li>3. Operate tool in short bursts.</li> </ol>
Tool will not run. Air flows freely from exhaust.	<ol style="list-style-type: none"> <li>1. Motor vanes stuck due to buildup of foreign material.</li> </ol>	<ol style="list-style-type: none"> <li>1. Disconnect air supply and rotate tool assembly manually.</li> <li>2. Try operating tool in short bursts.</li> <li>3. Tap motor housing gently with a rubber mallet.</li> <li>4. Drip a few drops of air tool lubricating oil into air inlet to soak moving parts.</li> </ol>
Tool will not shut off.	<ol style="list-style-type: none"> <li>1. Throttle O-rings damaged or ill-fitting in seat.</li> </ol>	<ol style="list-style-type: none"> <li>1. Return to Clarke dealer for repair.</li> </ol>

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# MAINTENANCE

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**WARNING: MAKE SURE THAT THE AIR TOOL IS DISCONNECTED FROM THE AIR SUPPLY BEFORE STARTING ANY CLEANING, OR MAINTENANCE PROCEDURES.**

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## DAILY

1. Before use, drain water from the air tank, air line and compressor.
2. Pour a few drops of CLARKE airline oil, into the air inlet. This should be carried out regardless of whether or not an in-line mini oiler is used. If an in-line mini oiler is not used, this procedure should be repeated after every two to three hours of use.

## CLEANING

1. Keep the body of the tool clean and free from debris.
2. Grit or gum deposits inside the tool may also reduce its efficiency. This condition can be corrected by cleaning out the air strainer inside the air inlet, and flushing out the tool with gum solvent or oil, or failing this, the motor may require dismantling. This is better left to your Clarke dealer.

## SERVICE AND REPAIR

If the tool runs erratically or becomes inefficient although the air supply is in good order, it may be necessary to dismantle the air motor and replace any worn or damaged parts. Such servicing and repair work should be carried out by a qualified service technician.

## PERFORMANCE

Please note that factors other than the tool may effect its operation and efficiency such as reduced compressor output, excessive drain on the airline moisture or restrictions in the air-line, or the use of connectors of improper size or poor condition which will reduce air supply.

\*\*Clarke Air Line Oil (part no. 3050825) is available from your CLARKE dealer.

## STORAGE

If the tool is to be stored, or is idle for longer than 24 hours, run a few drops of Clarke air line oil into the air inlet, and run the tool for 5 seconds in order to lubricate the internal parts.

When not in use, disconnect from air supply, clean tool and store in a safe, dry place. When storing, ensure the blanking plug is replaced on the airline connector once the airline is disconnected.

## ACCESSORIES

A wide range of accessories is available including filter/regulators, lubricators, high-pressure hoses (5 to 50 metres) etc.

Contact your CLARKE dealer for further information or CLARKE International Service Department.

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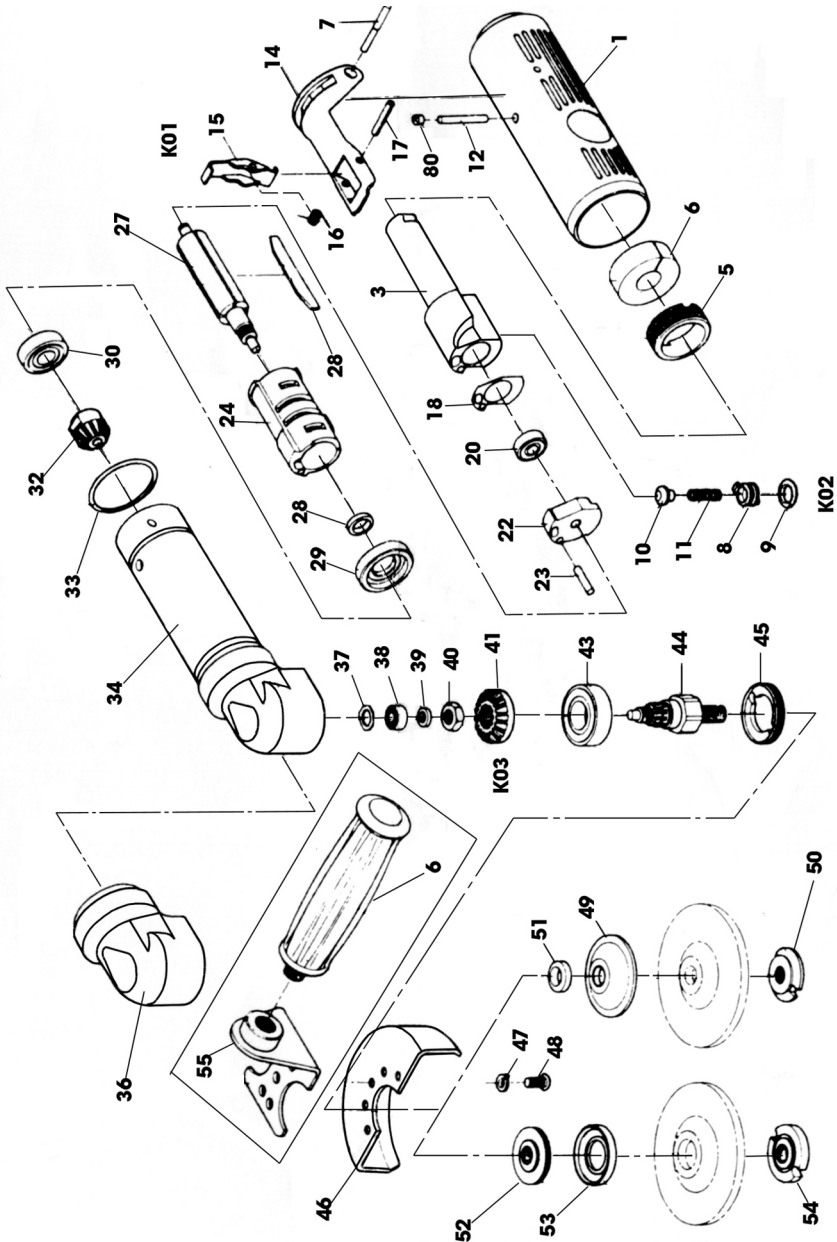
## SPECIFICATIONS

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Model Number	CAT52
Weight	3.1lbs (1.8 kg)
Disc Type	4" x 1/4" (type27 depressed centre)
Air Inlet Size	1/4"BSP (female)
Hose size	3/8" ID
Operating Pressure	90 psi (6.2 bar)
Air Consumption	6 cfm average
No Load Speed	11000 rpm @ 90psi
Sound Pressure Level (LpA dB)	90.4 dB(A)
Vibration Levels	0.514 m/s <sup>2</sup>

Please note that the details and specifications contained herein are correct at the time of going to print. However CLARKE International reserve the right to change specifications at any time without prior notice. Always consult the machine's data plate.

# PARTS LIST & DIAGRAM



## PARTS LIST & DIAGRAM

No	Part No	Description	No	Part No	Description
1	AG-30001	Exhaust Deflector	34	AG-30034	Motor Housing
3	AG-30003	Inlet	36	AG-30036	Housing Shield
5	AG-30005	Motor Lock Nut	37	WW-0010	Wave Washer
6	AG-30006	Muffler Felt	38	BB-06252	Ball Bearing
7	AG-30007	Throttle Lever Pin	39	AG-30039	Bearing Spacer
8	DG-14012	Throttle Valve Hsg Plug	40	AG-30040	Hexagon Nut
9	ORP-0100	O-Ring	41	AG-30041	Bevel Gear
10	DG-14010	Ball Bearing	43	BB-62022	Ball Bearing
11	DG-14011	Throttle Valve Spring	44	AG-30044	Arbor
12	AG-30012	Throttle Plunger	45	AG-30045	Bearing Cap
14	AG-30014	Throttle Lever	46	AG-30046	Centre Guard
15	DG-14027	Throttle Lever Lock	47	SW2-050A	Spring Washer
16	DG-14028	Spring (Lever Lock)	48	S4-5012A	Button Head Screw
17	SP-25220	Spring Pin	52	AG-30052	Flange
18	AG-30018	Gasket	53	AG-30053	Flange Rubber Shield
20	BB-06062	Ball Bearing	54	AG-30054	Flange Nut
22	AG-30022	Rear End Plate	55	AG-30055	Handle Bracket
23	SP-25180	Spring Pin	56	AP-70047	Handle
24	AG-30024	Cylinder	---	AG-30057	Wrench (not shown)
26	AG-30026	Vane	---	AG-30058	Wrench (not shown)
27	AG-30027	Rotor	59	AG-40059	Grinding Wheel
28	AG-30028	Spacer	60	DG-14045	Plunge Cap
29	AG-30029	Front End Plate	K01	AG-40K01	Throttle Lever Kit
30	BB-60002	Ball Bearing	K02	AG-40K02	Throttle Valve Kit
32	AG-30032	Bevel Pinion	K03	AG-40K03	Bevel Gear Kit
33	AG-30033	O-Ring			

# DECLARATION OF CONFORMITY

**Clarke**<sup>TM</sup>  
**INTERNATIONAL**

**This is an important document and should be retained**

## DECLARATION OF CONFORMITY



We declare that this product complies with the following standards/directives:

- **89/392/EEC**
- **EN 292-2**
- **EN 60 335 - 1**
- **EN 292-2**

Description: **Air tool range**

Model No: **CAT52**

Serial (Batch) No: **See Product Data Label**

Signed: 

**Clarke**<sup>®</sup> **INTERNATIONAL**  
Hemnal Street, Epping, Essex CM16 4LG

# A SELECTION FROM THE VAST RANGE OF

# Clarke®

## QUALITY PRODUCTS

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From DIY to industrial, Plus air tools, spray guns and accessories.

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### POWER WASHERS

Hot and cold, electric and engine driven - we have what you need

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Drills, grinders and saws for DIY and professional use.

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Angle grinders, cordless drill sets, saws and sanders.

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All sizes for car and commercial use.



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