

Chicago Pneumatic CP7406

Chicago Pneumatic CP7406 Air Angle Die Grinder User Manual

Model: CP7406

1. PRODUCT OVERVIEW

The Chicago Pneumatic CP7406 is a heavy-duty 1/4-inch (6 mm) air angle die grinder designed for professional use in various metal fabrication, vehicle servicing, and repair applications. It features a powerful 0.34 HP (250 W) motor capable of 23,000 RPM, providing efficient grinding and polishing performance.

Key features include:

- **Powerful and Fast:** 0.34 horsepower motor delivers a maximum speed of 23,000 RPM for heavy-duty tasks.
- **Ergonomic Design:** Compact and lightweight with a thermoplastic rubber (TPR) handle for superior grip and a composite casing to reduce heat transfer, ensuring operator comfort.
- **Enhanced Safety:** Equipped with a lock-off throttle to prevent accidental start-ups and a robust aluminum alloy body for durability.
- **Versatile Applications:** Ideal for welding, woodworking, automotive detailing, stainless steel polishing, deburring, and chamfering.
- **Innovative Spindle Lock System:** Allows for quick and easy burr changes with only one spanner wrench, improving productivity.



Figure 1: Overall view of the Chicago Pneumatic CP7406 Air Angle Die Grinder.

2. SAFETY INFORMATION

Always read and understand all safety warnings and instructions before operating the tool. Failure to follow these warnings and instructions may result in electric shock, fire, and/or serious injury.

- Wear appropriate personal protective equipment (PPE), including eye protection, hearing protection, and gloves.
- Ensure the workpiece is securely clamped before beginning any operation.
- Disconnect the air supply before changing accessories, performing maintenance, or when the tool is not in use.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- Keep children and bystanders away while operating a power tool.
- Maintain a firm grip on the tool during operation.
- Use only accessories rated for the tool's maximum RPM.

3. SETUP

Before initial use, ensure your air compressor can provide a stable air pressure of 90 PSI (6.2 bar) and sufficient airflow for optimal performance.

3.1 Connecting to Air Supply

1. Ensure the tool's throttle is in the OFF position.
2. Apply a few drops of pneumatic tool oil into the air inlet.
3. Connect a suitable air hose (minimum 1/4-inch inner diameter) to the tool's air inlet.
4. Connect the other end of the air hose to your regulated air supply.

3.2 Changing Carbide Burrs

The CP7406 features an innovative spindle lock system for quick and easy burr changes, requiring only one spanner wrench.



Figure 2: Close-up view of the spindle lock mechanism.

1. Disconnect the tool from the air supply.
2. Push and rotate the spindle lock mechanism until it engages, securing the collet.
3. Use the provided spanner wrench to loosen the collet nut.
4. Remove the old burr and insert the new burr into the collet, ensuring it is fully seated.
5. Tighten the collet nut firmly with the spanner wrench.
6. Disengage the spindle lock by rotating it back to its original position.



Figure 3: Visual guide for changing carbide burrs with the spindle lock system.

4. OPERATING INSTRUCTIONS

The CP7406 is designed for precision and power in various applications. Always ensure proper ventilation and safety precautions are in place.

4.1 General Operation

1. Connect the tool to the air supply.
2. Hold the tool firmly with both hands, if possible, or ensure a secure grip.
3. Depress the lock-off throttle to start the tool.
4. Apply the rotating burr to the workpiece with steady, controlled pressure. Avoid excessive force, which can damage the burr or the tool.
5. Move the tool smoothly across the surface to achieve desired results.
6. Release the throttle to stop the tool.

4.2 Applications

The CP7406 is suitable for a range of tasks:

- **Grinding:** Removing material from surfaces.
- **Deburring:** Smoothing rough edges after cutting or machining.

- **Chamfering:** Creating a beveled edge.
- **Polishing:** Achieving a smooth, finished surface.
- **Matching Welded Surfaces:** Blending welds for a seamless finish.

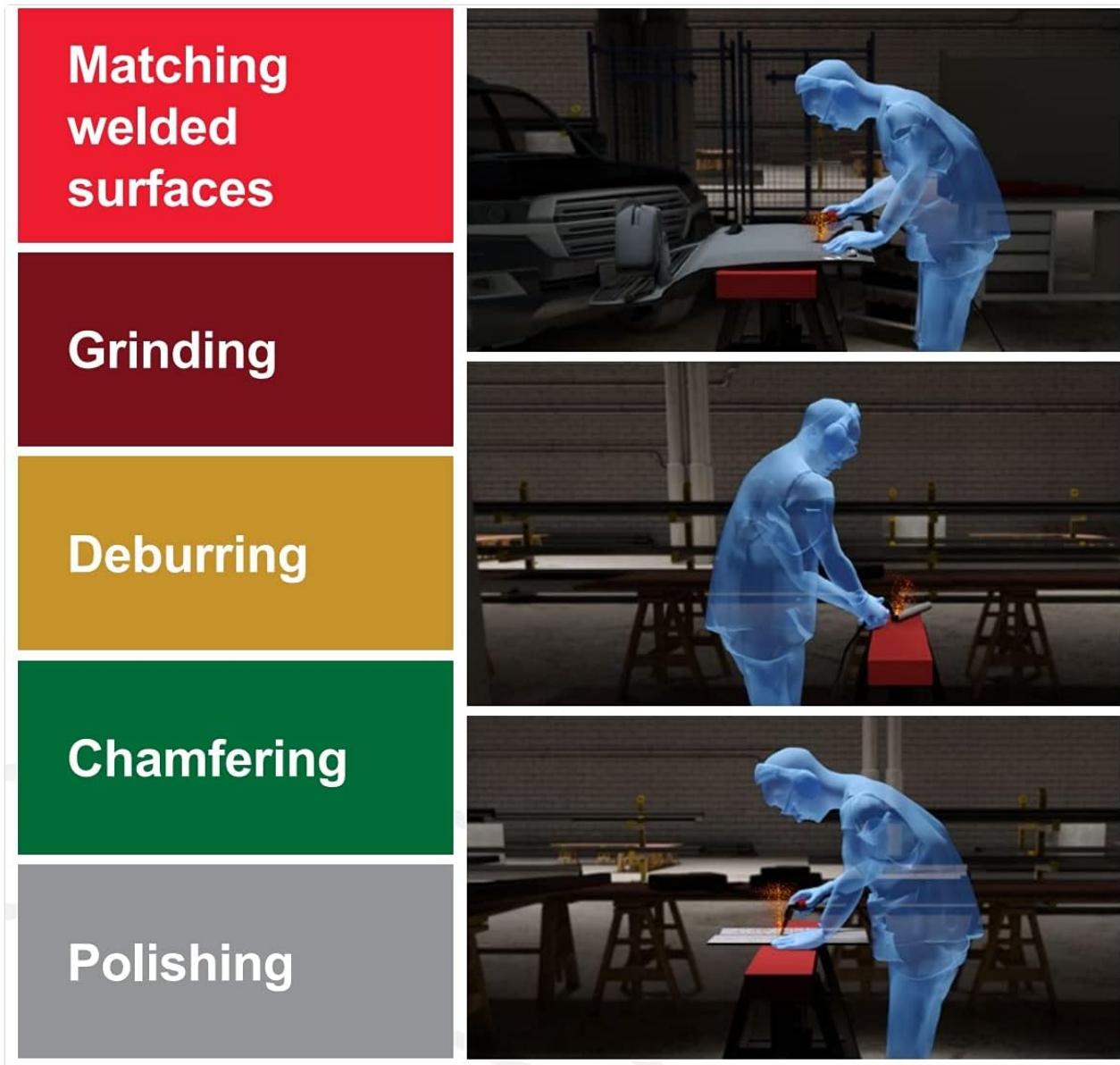


Figure 4: Common applications for the CP7406 die grinder.

4.3 Ergonomics and Comfort

The tool's thermoplastic rubber (TPR) handle provides a secure grip, preventing slippage. Its rugged composite casing acts as an insulator, reducing heat transfer from the motor to the sleeve, allowing for comfortable extended use.

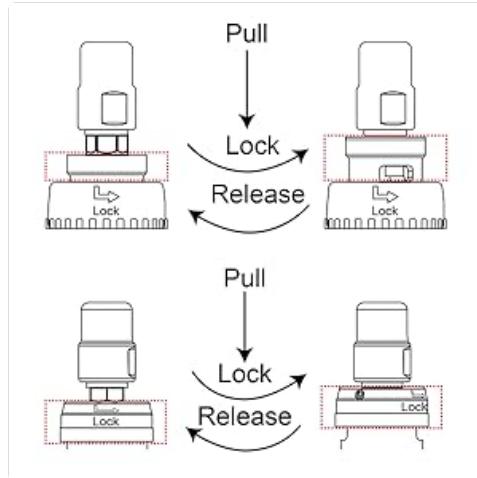


Figure 5: Ergonomic features for enhanced user comfort.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your CP7406 die grinder.

- **Daily Lubrication:** Apply a few drops of high-quality pneumatic tool oil into the air inlet before and after each use, or every few hours of continuous operation.
- **Air Filter:** Ensure your air supply system has a clean and properly functioning air filter to prevent contaminants from entering the tool.
- **Cleaning:** Keep the tool clean and free from debris. Wipe down the exterior with a clean cloth. Do not use harsh solvents.
- **Collet Inspection:** Regularly inspect the collet and collet nut for wear or damage. Replace if necessary to ensure proper burr retention.
- **Hose Inspection:** Check air hoses for cuts, abrasions, or leaks. Replace damaged hoses immediately.

6. TROUBLESHOOTING

If you encounter issues with your CP7406 die grinder, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Tool does not start or runs slowly	Low air pressure; Insufficient air flow; Lack of lubrication; Worn motor parts	Check air supply and regulator setting; Use larger diameter hose; Lubricate tool; Contact service center
Excessive vibration	Bent or damaged burr; Worn collet; Internal wear	Replace burr; Replace collet; Contact service center
Air leaks	Loose fittings; Damaged O-rings or seals	Tighten connections; Replace damaged components
Tool gets hot	Overuse; Lack of lubrication; Internal friction	Allow tool to cool; Lubricate tool; Contact service center

For issues not listed above or if solutions do not resolve the problem, please contact Chicago Pneumatic customer support.

7. SPECIFICATIONS

Detailed technical specifications for the Chicago Pneumatic CP7406 Air Angle Die Grinder:

Specifications	Values	Chicago Pneumatic					
							
Model name		CP7405	CP7406	CP7408	CP7410	CP7411	CP7412
Part number		8941074050	8941074060	8941074080	8941074100	8941074110	8941074120
Collet size	[in] & [mm]			1/4" & 6mm			
Power	[W]		250			420	
	[hp]		0.34			0.56	
Free speed	[rpm]	28,000		23,000	27,000		22,000
Weight	[Kg]	0.5	0.60	0.62	0.65	0.7	1.1
	[lbs]	1.10	1.32	1.37	1.43	1.54	2.43
Air Cons @ free speed	[l/s]		1.3			1.7	
	[cfm]		2.7			3.6	
Air Cons @ free speed	[NI/s]		9			12.1	
	[scfm]		20			26	
Min hose size	[mm]			10			
Air inlet thread size	[in.]			1/4			
Sound pressure	[dBA]	76.2	78.1	78.6	76.1	80.7	80.4
Sound power	[dBA]	87.2	89.1	89.6	87.1	91.7	91.4
Vibrations	[m/s ² - k]	3.60 - k = 0.98	5.40 - k = 1.27	4.30 - k = 0.93	4.90 - k = 0.96	3.10 - k = 0.79	2.60 - k = 0.76

Figure 6: Specifications for the CP74 series, including CP7406.

Specification	Value
Model Number	CP7406
Part Number	8941074060
Collet Size	1/4 inch (6 mm)
Power	0.34 HP / 250 W
Maximum Rotational Speed (Free Speed)	23,000 RPM
Item Weight	1.32 lbs (0.60 kg)
Product Dimensions (L x W x H)	6.42 x 1.5 x 3.62 inches
Air Pressure Requirement	90 PSI (6.2 bar)
Sound Level	78.1 dB
Material	Metal
UPC	015451781514
Country of Origin	Taiwan

8. WARRANTY AND SUPPORT

The Chicago Pneumatic CP7406 Air Angle Die Grinder comes with a **1 Year Limited Warranty**. Please retain your proof of purchase for warranty claims.

For technical assistance, warranty service, or to find authorized service centers, please visit the official Chicago Pneumatic website or contact their customer support. You can also visit the [Chicago Pneumatic Store](#)

on Amazon for more product information and resources.

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Related Documents - CP7406

	<p>Chicago Pneumatic CP872 Die Grinder Operator's Manual Comprehensive operator's manual for the Chicago Pneumatic CP872 Die Grinder, covering operation, lubrication, maintenance, safety instructions, and technical specifications.</p>
	<p>Chicago Pneumatic SQUEEZER Operator's Manual Official operator's manual for the Chicago Pneumatic SQUEEZER tool, detailing specifications, operation, maintenance, and safety instructions for models CP4210CS, CP4220CS, CP4210AL, CP4220AL, CP4210AS, and CP4220AS.</p>
	<p>Chicago Pneumatic Pneumatic Screwdrivers: Safety Information and Technical Data Essential safety information, technical specifications, and operating guidelines for Chicago Pneumatic pneumatic screwdrivers (CP2810, CP2811, CP2812, CP2814, CP2822, CP2824). This manual provides critical safety warnings, intended use, and performance data for professional and industrial applications.</p>
	<p>Chicago Pneumatic General Pneumatic Tools 1 Year Limited Warranty Policy Details the limited warranty policy for Chicago Pneumatic General Pneumatic Tools, covering defects in material and workmanship for one year from the date of purchase. Explains warranty coverage, exclusions, and the process for claims.</p>
	<p>Chicago Pneumatic CP-6300-RSR Impact Wrench: User Manual, Safety Guide, and Specifications Comprehensive user manual and safety guide for the Chicago Pneumatic CP-6300-RSR Impact Wrench. Includes operating instructions, maintenance procedures, detailed safety warnings, warranty information, parts list, and air supply diagram.</p>



[Chicago Pneumatic CP 0009 and CP 0014 Handheld Rotary Hammers Safety and Operating Instructions](#)

Comprehensive safety and operating instructions for Chicago Pneumatic CP 0009 and CP 0014 handheld rotary hammers. Covers installation, operation, maintenance, technical data, and safety precautions.