Dynabrade 59020

Instruction Manual

Dynabrade Dynorbital-Spirit Random Orbital Sander

Model: 59020

1. Product Overview

The Dynabrade Dynorbital-Spirit Random Orbital Sander (Model 59020) is a pneumatic abrasive power tool designed for surface preparation and finishing. This non-vacuum model features a 5-inch (127 mm) diameter pad with a 3/16-inch (5 mm) diameter orbit, providing a swirl-free finish. It operates at up to 12,000 RPM and is engineered for efficiency and user comfort.

Key Features:

- **Spirit Sanding:** 5" diameter (127 mm), 3/16" (5 mm) diameter orbit for a swirl-free finish. Includes premium weight-mated sanding pad.
- **Ergonomic Design:** Recessed throttle lever with thumb speed control to reduce operator fatigue.
- **Pneumatic Power:** Smooth, 0.25 hp motor running at up to 12,000 RPM. Features a floating five-blade rotor for efficient power delivery and a high-strength composite design.
- **Comfort Platform:** Provides additional hand and wrist support, and protection against cold air exhaust.
- **Muffling:** Reduces exhaust sound levels for quieter operation.

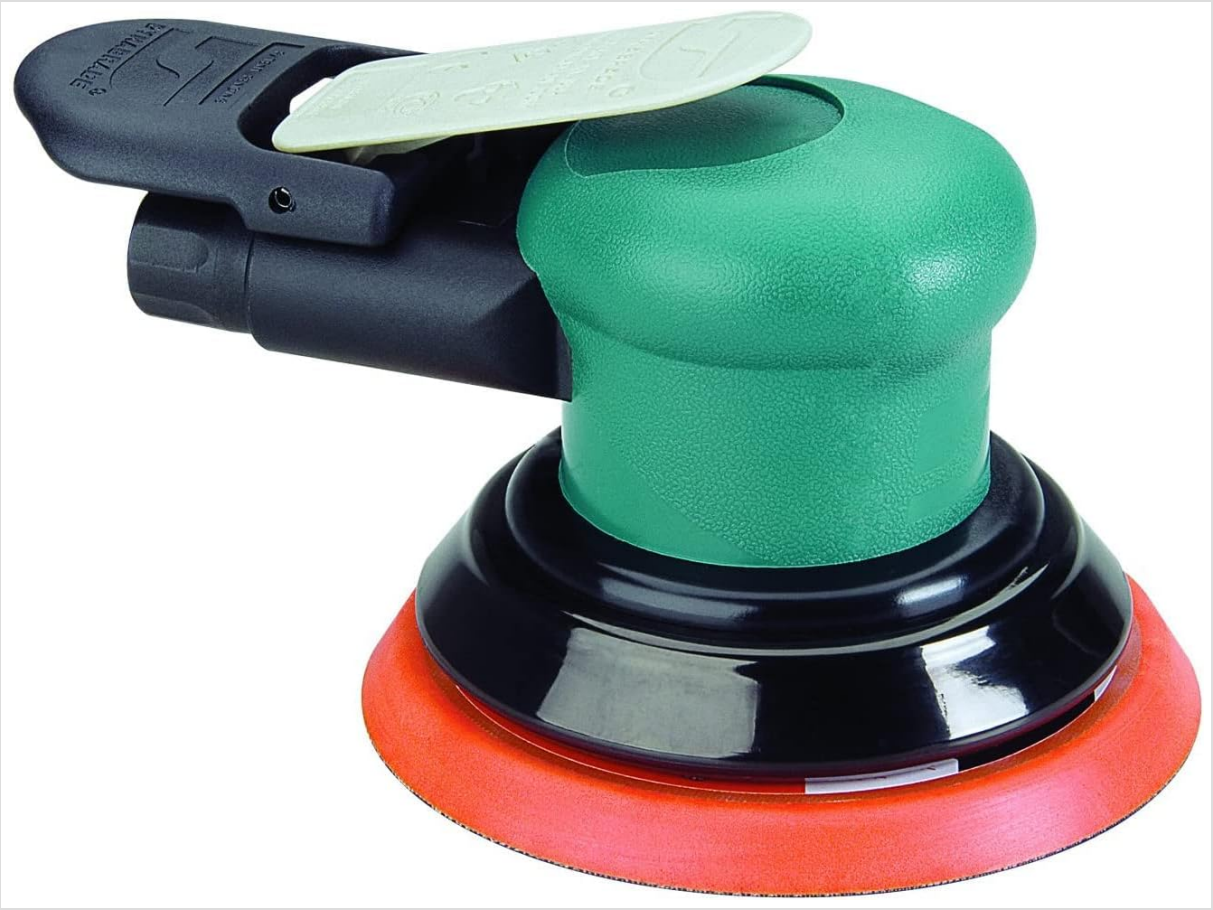

Image 1: The Dynabrade Dynorbital-Spirit Random Orbital Sander (Model 59020) in its standard configuration, showcasing its teal and black body with the sanding pad visible.

2. Safety Information

Always prioritize safety when operating power tools. Read and understand all safety warnings and instructions provided with this product. Failure to follow the warnings and instructions may result in electric shock, fire, and/or serious injury.

General Safety Guidelines:

- Wear appropriate personal protective equipment (PPE), including eye protection, hearing protection, and dust masks.
- Ensure your work area is clean, well-lit, and free of obstructions.
- Maintain a firm grip on the tool during operation.
- Disconnect the air supply before making adjustments, changing accessories, or performing maintenance.
- Do not operate the tool if it is damaged or malfunctioning.
- Keep bystanders, especially children, away from the work area.

For detailed safety information, please refer to the official Safety Information PDF document:

Safety Information (PDF)

3. Setup

Before operating the Dynorbital-Spirit Sander, ensure proper setup of your pneumatic system and the tool

itself.

Air Supply Requirements:

- The sander requires a clean, dry, and regulated air supply.
- Recommended operating pressure is 90 PSI (6.2 Bar) at the tool inlet while the tool is running.
- Ensure your air compressor can provide sufficient SCFM (Standard Cubic Feet per Minute) for continuous operation (14 SCFM / 396 LPM for this model).
- Install an air filter, regulator, and lubricator (FRL unit) in your air line, as close to the tool as possible, to ensure clean, regulated, and lubricated air.

Attaching the Sanding Pad and Abrasive:

1. Ensure the tool is disconnected from the air supply.
2. The sander comes with a premium weight-mated sanding pad. Ensure it is securely attached to the tool's spindle.
3. Select the appropriate abrasive disc (e.g., hook-and-loop or PSA depending on your pad) for your application and attach it firmly to the sanding pad.

4. Operating Instructions

Follow these guidelines for effective and safe operation of your random orbital sander.

Basic Operation:

1. Connect the tool to the regulated air supply.
2. Hold the sander firmly with both hands, if possible, or use the comfort platform for support.
3. Place the sanding pad flat on the workpiece surface before engaging the throttle.
4. Press the recessed throttle lever to start the sander. Use the thumb speed control to adjust RPM as needed for the material and desired finish.
5. Move the sander in overlapping circular or elliptical patterns across the surface. Avoid applying excessive pressure, as this can reduce sanding efficiency and create swirl marks. The weight of the tool is usually sufficient.
6. Lift the sander from the workpiece only after releasing the throttle.

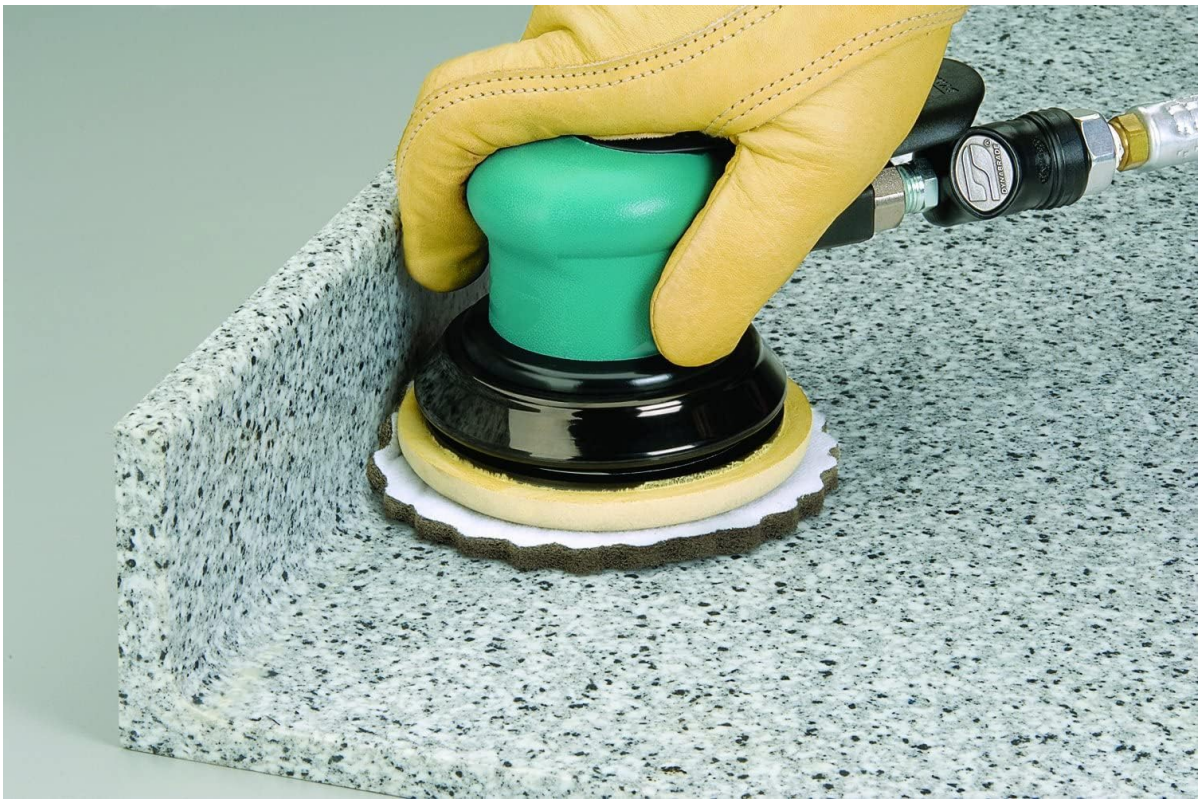

Image 2: The Dynabrade sander being used to smooth the edge of a granite countertop, demonstrating its application on hard surfaces.

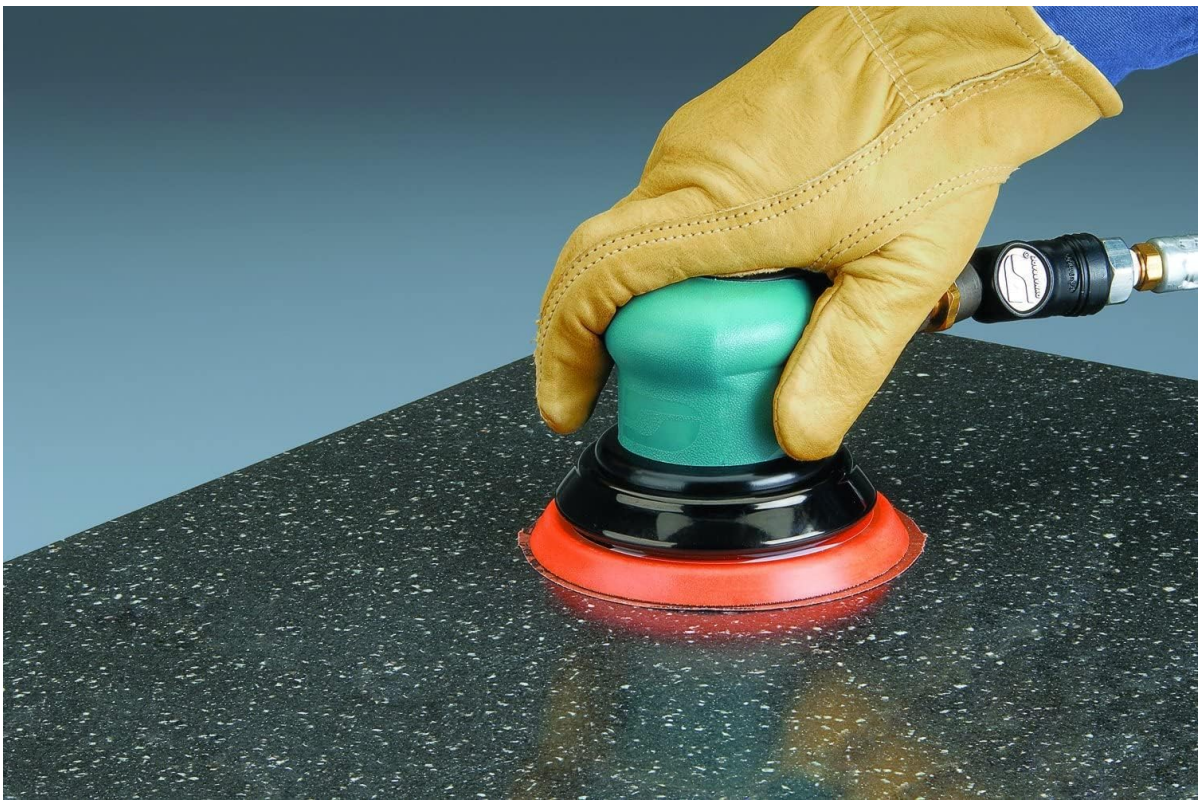

Image 3: The Dynabrade sander in operation on a flat, dark-colored surface, illustrating proper technique for achieving a uniform finish.

Tips for Best Results:

- Start with a coarser grit abrasive and progressively move to finer grits for a smoother finish.
- Keep the sanding pad flat against the surface to avoid uneven sanding or gouging.
- Regularly check and replace worn abrasive discs for optimal performance.

5. Maintenance

Proper maintenance ensures the longevity and optimal performance of your Dynabrade sander.

Daily Maintenance:

- **Air Line Lubrication:** Ensure your air supply includes an in-line lubricator or manually add a few drops of pneumatic tool oil into the air inlet before and after each use.
- **Cleanliness:** Wipe down the tool exterior to remove dust and debris. Keep the air inlet free from obstructions.

Periodic Maintenance:

- **Inspect Air Hose and Fittings:** Check for wear, leaks, or damage. Replace as necessary.
- **Sanding Pad Inspection:** Examine the sanding pad for wear, tears, or loss of hook-and-loop effectiveness. Replace if damaged to ensure proper abrasive adhesion and sanding performance.
- **Internal Inspection (Professional Recommended):** For advanced maintenance, such as checking motor components or bearings, it is recommended to consult a qualified service technician or Dynabrade authorized service center.

6. Troubleshooting

This section addresses common issues you might encounter with your Dynabrade sander.

Problem	Possible Cause	Solution
Tool not starting or low power	Insufficient air pressure; clogged air filter; lack of lubrication; worn motor components.	Check air pressure (should be 90 PSI at tool); clean/replace air filter; lubricate tool; consult service center if motor issues persist.
Excessive vibration	Damaged or unbalanced sanding pad; worn bearings; bent spindle.	Inspect and replace sanding pad if damaged; consult service center for internal component inspection.
Poor finish (swirl marks)	Excessive pressure; worn abrasive; incorrect grit for application; damaged pad.	Reduce pressure; replace abrasive; use appropriate grit sequence; inspect/replace sanding pad.
Air leaking from tool	Loose fittings; damaged O-rings or seals.	Tighten fittings; consult service center for seal replacement.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact Dynabrade customer support or an authorized service center.

7. Specifications

Attribute	Value
Brand	Dynabrade

Attribute	Value
Model Number	59020
Item Weight	1.43 pounds (0.65 Kilograms)
Product Dimensions	10.8 x 6.3 x 4.4 inches
Style	Non-vacuum
Maximum Rotational Speed	12000 RPM
Grit Type	Fine
Grit Number (Example)	60
Power Source	Pneumatic (Air-powered)
AC Adapter Current (Note: This is a pneumatic tool, this spec might be for a different product type or general spec)	12 Amps
Color	Teal
Item Package Quantity	1
Special Features	Compact
UPC	616026590205

8. Warranty and Support

Warranty Information:

Dynabrade warrants its portable pneumatic power tools against defects in workmanship and materials for the lifetime of the tool, provided the tool is registered at www.Dynabrade.com. This lifetime warranty applies only to the original tool owner and is non-transferable. Normally wearable parts (e.g., bearings, rotor blades, O-rings) are not covered. The warranty is contingent upon proper use in accordance with factory recommendations and safety practices, and does not cover misuse, negligence, accident, or tampering.

Unregistered tools will receive a one-year warranty (two years in European countries).

Customer Support:

For further assistance, technical support, or service inquiries, please refer to the official Dynabrade website or contact their customer service department. You can also find the full user manual here:

User Manual (PDF)