

NZXT CC-H31FW-01

NZXT H3 Flow Micro-ATX PC Case Instruction Manual

Brand: **NZXT** | Model: **CC-H31FW-01**

1. INTRODUCTION

The NZXT H3 Flow (CC-H31FW-01) is a space-efficient micro-ATX PC case designed to deliver exceptional airflow and versatile component compatibility. Its design focuses on optimal cooling, featuring mesh panels and a ventilated PSU shroud to ensure high-performance components run smoothly. This manual provides essential information for setting up, operating, and maintaining your H3 Flow PC case.



Figure 1.1: The NZXT H3 Flow PC Case, showcasing its clean design and spacious interior.

2. KEY FEATURES

- **Space-Saving Size:** A micro-ATX chassis designed to fit into tighter spaces without compromising on performance.
- **High-Airflow Design:** Features ultra-fine steel mesh on the front and PSU shroud to maximize airflow and effectively filter dust.
- **Extensive Cooling Support:** Supports up to a 280 mm radiator at the front, a 240 mm radiator at the top, and up to seven fans for powerful cooling performance.
- **Full-Size Graphics Card Compatibility:** Accommodates GPUs up to 377 mm (without front fans), 352 mm (with front fans), and 317 mm (with front radiator and fans installed).
- **Pre-Installed Rear Fan:** Comes equipped with a F120Q (CV) fan at the rear for efficient exhaust airflow right out of the box.
- **Easy Cable Management:** Integrated cable channels and tie-down points simplify cable routing for a clean and organized build.
- **Back-Connect Motherboard Ready:** Fully compatible with rear-connect motherboards like ASUS BTF and MSI

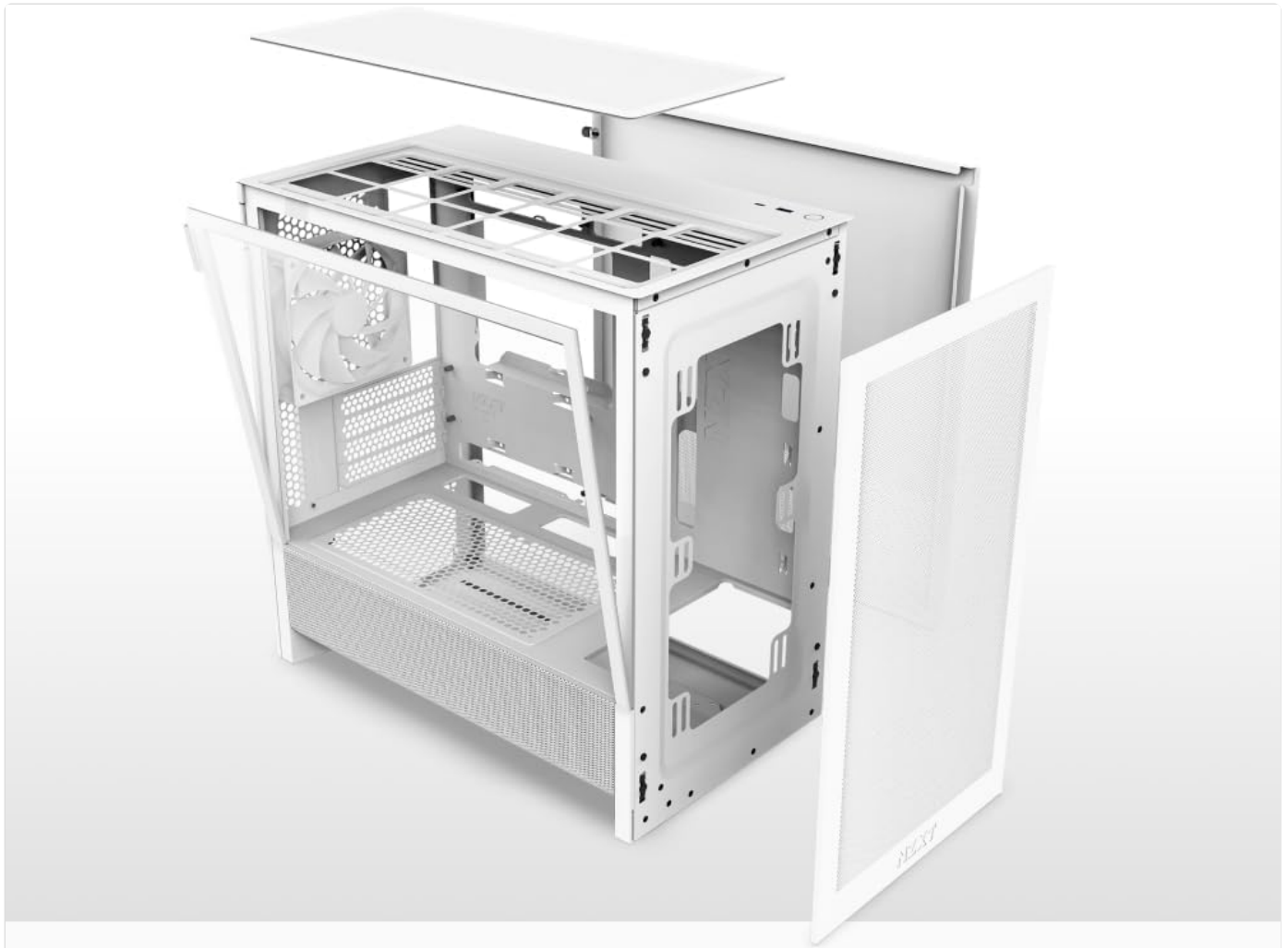
Project Zero, enabling a sleek, cable-free appearance.

- **Tool-Free Entry:** Removable top, front, and side panels allow quick, easy access for upgrades and cleaning—no tools required.

3. SETUP AND INSTALLATION

3.1 Unpacking and Initial Access

Carefully remove the H3 Flow case from its packaging. The case features a builder-friendly design with tool-free access to its internal components. The top, front, and side panels can be easily removed for installation and maintenance.



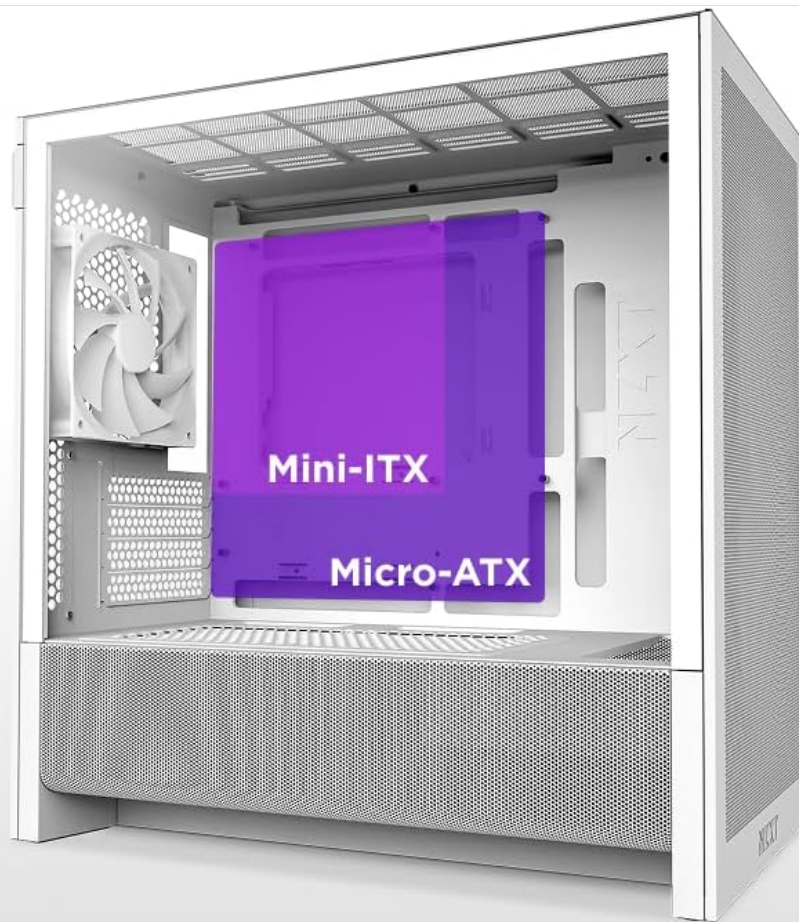
BUILDER-FRIENDLY DESIGN

Tool-free access with integrated cable channels and tie-down points makes building easy.

Figure 3.1: Tool-free access to the H3 Flow's interior for easy building and maintenance.

3.2 Motherboard Installation

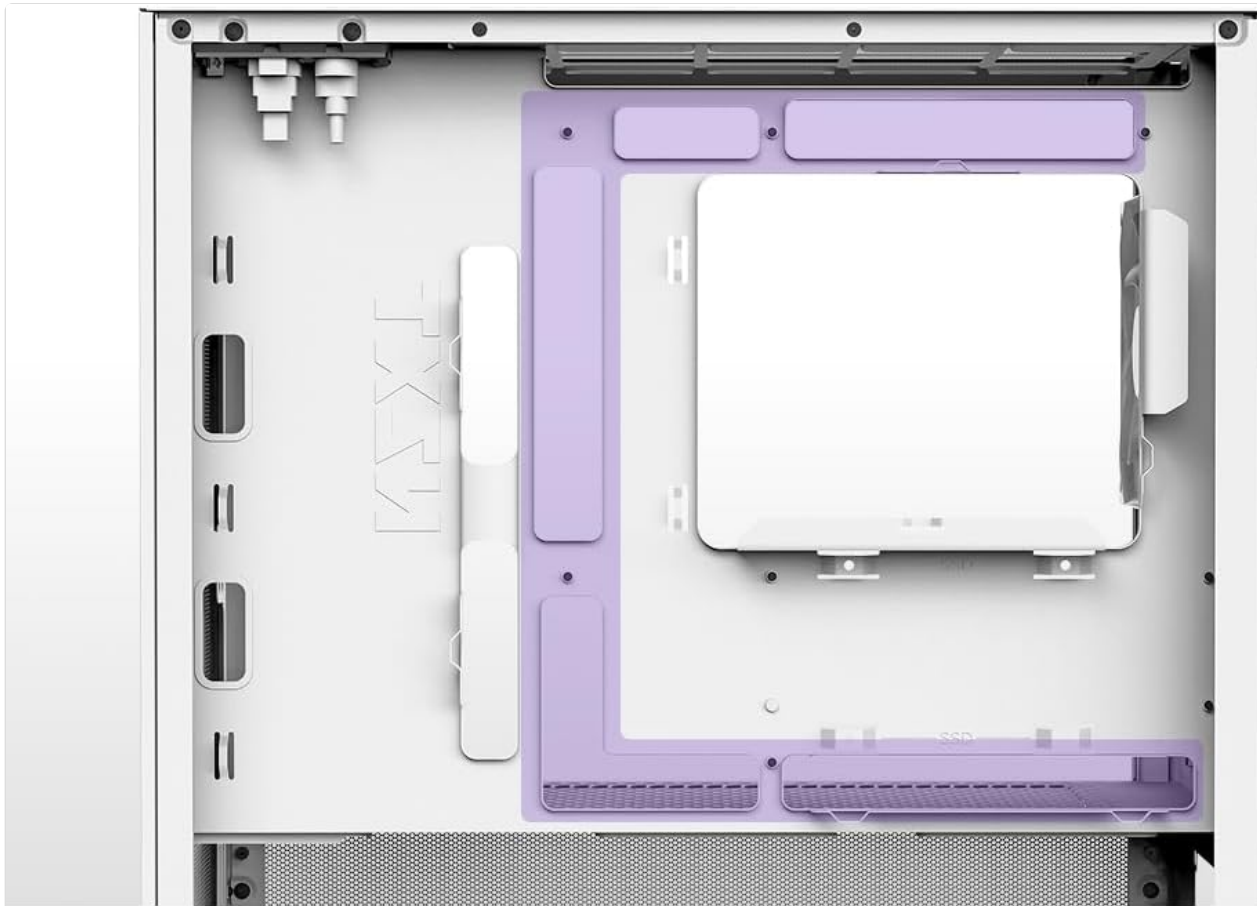
The H3 Flow supports Micro-ATX and Mini-ITX motherboards. It is also fully compatible with back-connect motherboards like ASUS BTF and MSI Project Zero, allowing for a cleaner, cable-free aesthetic within the main chamber.



SPACE-SAVING DESIGN

Micro-ATX form factor fits into tighter spaces without compromising on performance.

Figure 3.2: Motherboard compatibility within the H3 Flow chassis.



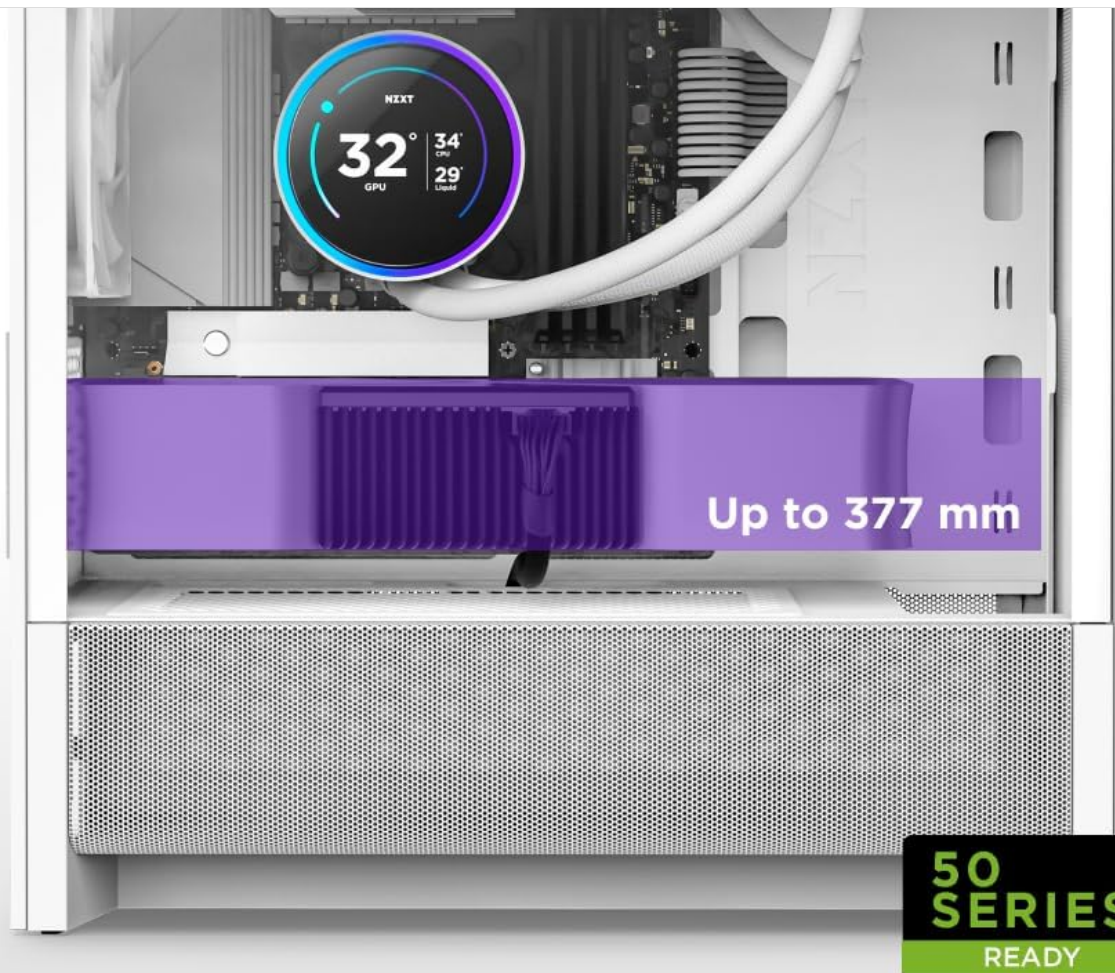
BACK-CONNECT SUPPORT

Compatible with back-connect motherboards like ASUS BTF and MSI Project Zero for a clean, cable-free view.

Figure 3.3: Dedicated area for back-connect motherboards for simplified cable routing.

3.3 Component Installation (GPU, Cooling, Storage)

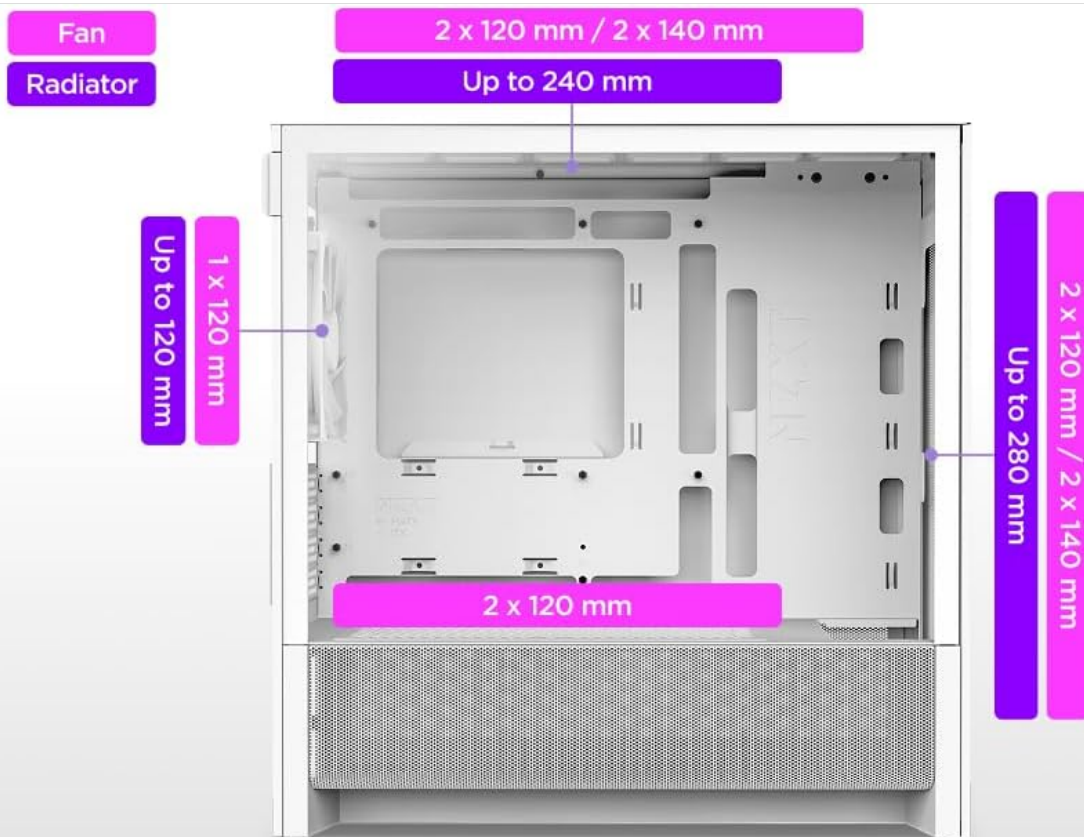
The H3 Flow is designed to accommodate full-sized graphics cards, supporting lengths up to 377 mm without front fans, 352 mm with front fans, and 317 mm with a front radiator and fans installed. For cooling, the case supports a 280 mm radiator at the front, a 240 mm radiator at the top, and up to seven fans in total. A F120Q (CV) fan is pre-installed at the rear for exhaust.



FULL-SIZE GRAPHICS CARDS

Fits GPUs up to 377 mm (no front fans), 352 mm (with fans), or 317 mm (with fans and radiator).

Figure 3.4: Graphics card clearance within the H3 Flow.



SPACIOUS COOLING

Supports a 280 mm front radiator, 240 mm top radiator, and up to 7 fans.

Figure 3.5: Fan and radiator support locations and sizes.



PRE-INSTALLED REAR FAN

Equipped with an F120Q (CV) rear fan for out-of-the-box exhaust.
CV = Case Version (3-pin DC)

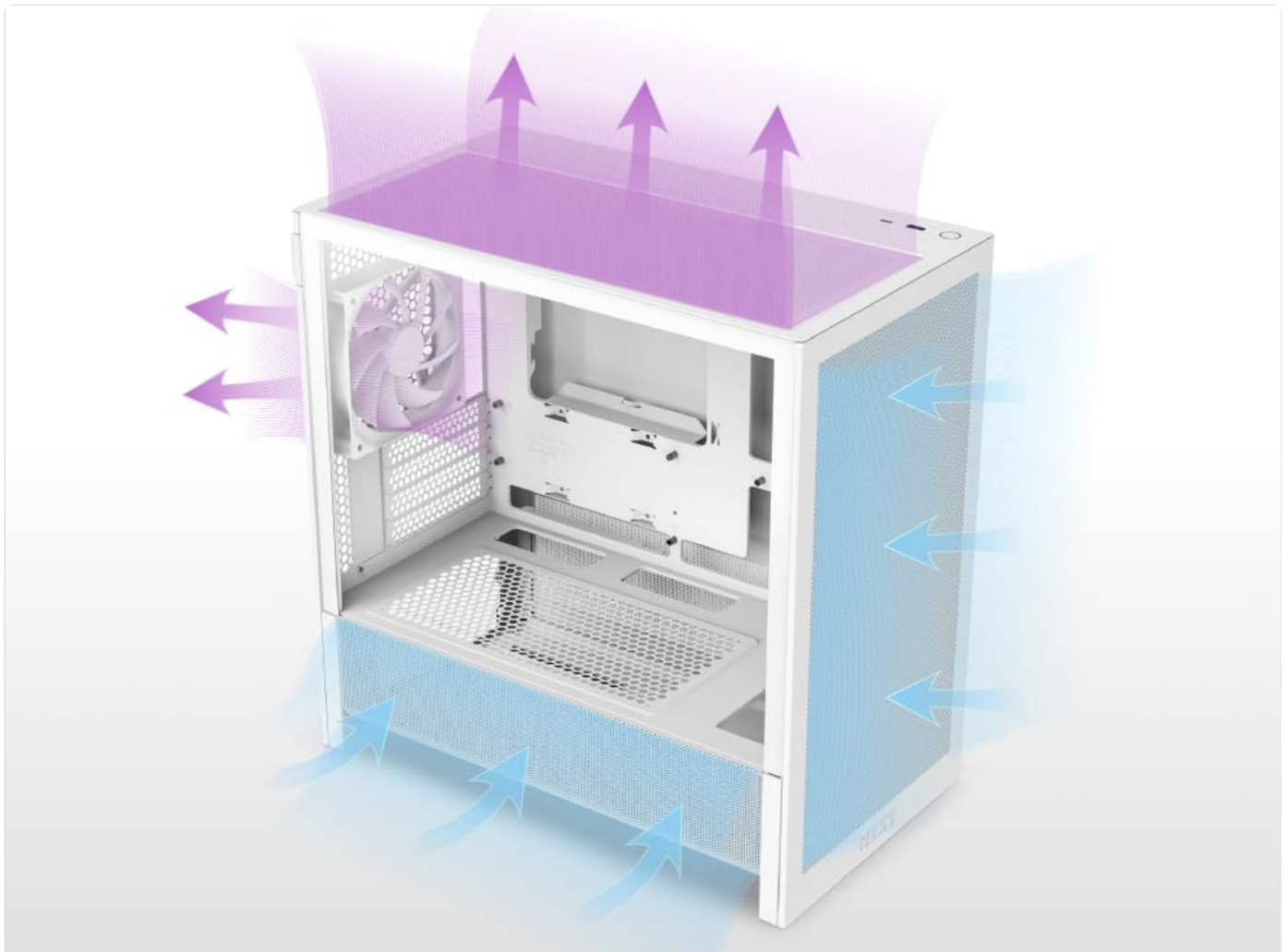
Figure 3.6: The pre-installed F120Q (CV) rear fan.

3.4 Cable Management

Utilize the integrated cable channels and tie-down points located behind the motherboard tray to route and secure your cables. This ensures optimal airflow and a clean internal appearance.

4. OPERATION

The NZXT H3 Flow is designed for optimal thermal performance. Its high-airflow mesh panels on the front and PSU shroud facilitate efficient air intake and exhaust, keeping your components cool even under heavy loads. Ensure all fans are correctly oriented for proper airflow (intake from front/bottom, exhaust from rear/top).



OPTIMIZED AIRFLOW

Ultra-fine mesh on the front and PSU shroud maximizes air intake and reduces dust buildup.

Figure 4.1: Optimized airflow design for superior cooling.

5. MAINTENANCE

Regular maintenance is crucial for maintaining optimal performance and longevity of your PC components. The ultra-fine steel mesh panels act as dust filters, but they should be cleaned periodically to prevent dust buildup and maintain airflow. The tool-free removable panels make this process simple.

- **Dust Filter Cleaning:** Periodically remove the front and top mesh panels and gently clean them with compressed air or a soft brush to remove accumulated dust.
- **Interior Cleaning:** With the side panels removed, use compressed air to clear dust from internal components such as fans, heatsinks, and the power supply unit.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your PC case.

- **High Component Temperatures:**

- Ensure all case fans are properly installed and oriented for optimal airflow (intake at front/bottom, exhaust at rear/top).
- Clean dust filters and internal components regularly to prevent airflow obstruction.
- Verify that CPU cooler and GPU fans are functioning correctly.
- **Excessive Noise:**
 - Check if any cables are obstructing fan blades.
 - Ensure all screws for fans and components are tightened to prevent vibrations.
 - Consider replacing older or noisy fans.
- **Difficulty Installing Components:**
 - Refer to Section 3 for component clearance specifications (GPU length, radiator sizes).
 - Ensure all tool-free panels are fully disengaged before attempting to remove or install components.

7. TECHNICAL SPECIFICATIONS



H3 FLOW

Space-efficient micro-ATX case designed for optimal airflow with large component support.

Figure 7.1: Physical dimensions of the NZXT H3 Flow.

Feature	Detail
Brand	NZXT
Model Name	NZXT H3
Item Model Number	CC-H31FW-01
Motherboard Compatibility	Micro ATX
Case Type	Mid Tower
Color	White
Material	Alloy Steel
Item Weight	10.58 pounds (4800 Grams)
Product Dimensions (LxWxH)	15.75 x 15.35 x 9.06 inches
Cooling Method	Air
Number of USB 3.0 Ports	2
Power Supply Mounting Type	Bottom Mount

8. WARRANTY AND SUPPORT

For warranty information, technical support, or further assistance with your NZXT H3 Flow PC case, please refer to the official NZXT website or contact their customer support directly. Keep your proof of purchase for warranty claims.

Online Resources: Visit the official [NZXT Store on Amazon](#) for product information and support.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question