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Hypertherm 011110

Hypertherm 011110 Filter Element User Manual

For Hypertherm Plasma Cutting Systems

1. INTRODUCTION

1.1 Product Overview

The Hypertherm 011110 Filter Element is a critical replacement component designed for use within Hypertherm plasma cutting systems. This element is specifically engineered to fit into the 011109 filter housing, forming an integral part of the compressed air filtration system. Its primary function is to remove moisture, oil aerosols, and particulate matter from the compressed air supply, which is essential for the proper operation and longevity of plasma cutting torches and power supplies.

1.2 Intended Use

This filter element is intended for professional use in industrial and workshop environments where Hypertherm plasma cutting equipment is utilized. It ensures a clean and dry air supply, which directly impacts cut quality, consumable life, and overall system reliability. Regular replacement of the filter element according to maintenance schedules is crucial for optimal performance.

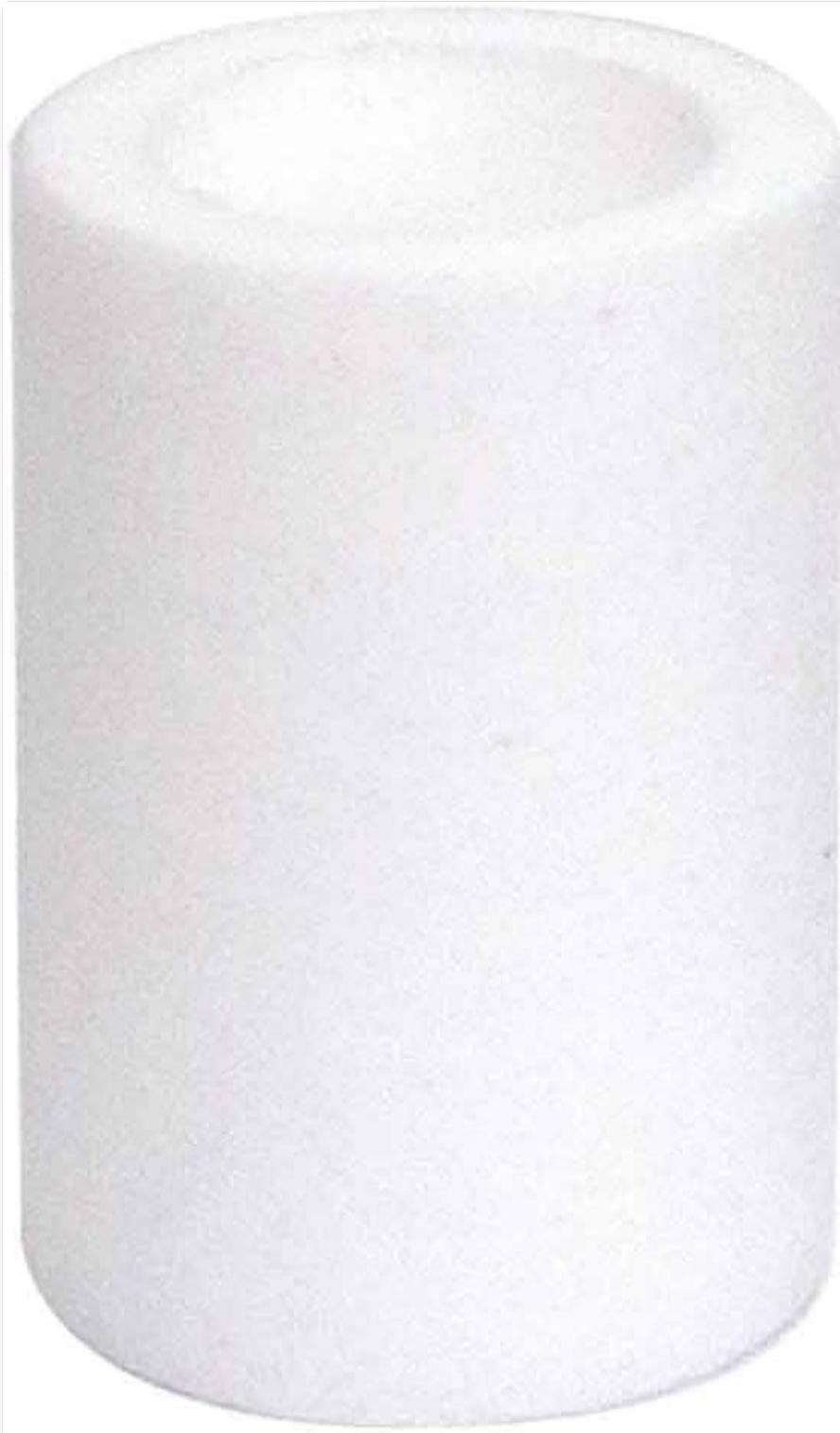


Figure 1: The Hypertherm 011110 Filter Element. This image displays the cylindrical, white filter element, which is a key component for maintaining clean air in plasma cutting systems.

2. SAFETY INFORMATION

Always observe general safety precautions when working with industrial equipment and compressed air systems. Failure to follow safety guidelines can result in personal injury or equipment damage.

- **Disconnect Power:** Before attempting any installation or maintenance, ensure the plasma cutting system and its air compressor are completely powered off and disconnected from the electrical supply.
- **Depressurize Air System:** Always depressurize the compressed air system before opening any filter

housings or air lines. Residual pressure can cause components to eject forcefully.

- **Wear Personal Protective Equipment (PPE):** Use appropriate PPE, including safety glasses and gloves, to protect against potential hazards.
- **Consult System Manual:** Refer to the main Hypertherm plasma cutting system manual for specific safety instructions related to your equipment model.
- **Proper Disposal:** Dispose of used filter elements according to local environmental regulations.

3. SETUP AND INSTALLATION

Follow these steps to correctly install the Hypertherm 011110 Filter Element:

1. **Prepare the System:** Ensure the plasma cutting system and air compressor are turned off and the air supply is depressurized as described in the Safety Information section.
2. **Locate Filter Housing:** Identify the Hypertherm 011109 filter housing within your plasma cutting system's air preparation unit.
3. **Open Housing:** Carefully open the filter housing. This typically involves unscrewing a bowl or releasing a latch mechanism. Refer to your specific filter housing's instructions if unsure.
4. **Remove Old Element:** Extract the used filter element from the housing. Note its orientation for correct installation of the new element.
5. **Clean Housing (Optional):** Inspect the inside of the filter housing for any debris or residue. Clean if necessary with a lint-free cloth.
6. **Install New Element:** Insert the new Hypertherm 011110 Filter Element into the housing, ensuring it is seated correctly and oriented as the old element was. Do not force the element into place.
7. **Secure Housing:** Close and securely fasten the filter housing. Ensure any O-rings or seals are properly seated to prevent air leaks.
8. **Restore Air Pressure:** Slowly restore air pressure to the system and check for any leaks around the filter housing. If leaks are detected, depressurize and re-seat the housing.
9. **Power On:** Once the air system is sealed and pressurized, you may power on the plasma cutting system.

4. OPERATING PRINCIPLES

Once installed, the Hypertherm 011110 Filter Element functions passively as part of the air filtration system. Compressed air flows through the element, which traps contaminants such as moisture, oil, and solid particles. This ensures that only clean, dry air reaches the plasma torch, which is crucial for:

- **Optimized Cut Quality:** Contaminants in the air can lead to poor cut quality, dross, and inconsistent results.
- **Extended Consumable Life:** Clean air significantly extends the lifespan of plasma torch consumables, reducing operating costs.
- **System Protection:** Prevents damage to sensitive internal components of the plasma power supply and torch from moisture and particulate matter.

No direct user operation is required for the filter element itself beyond proper installation and scheduled maintenance.

5. MAINTENANCE

Regular maintenance of the filter element is vital for the performance and longevity of your plasma cutting system.

5.1 Replacement Schedule

The Hypertherm 011110 Filter Element is a consumable item and requires periodic replacement. The exact replacement interval depends on several factors:

- **Usage Frequency:** Systems used daily will require more frequent replacement than those used occasionally.
- **Air Quality:** The quality of the incoming compressed air (e.g., presence of oil, high humidity) will affect filter life.
- **Manufacturer Recommendations:** Always refer to your Hypertherm plasma system's specific manual for recommended filter replacement intervals. A common recommendation is every 3-6 months or after a certain number of operating hours.

5.2 Signs of a Clogged Filter

Monitor your system for the following indicators that may suggest a clogged or failing filter element:

- Reduced air flow to the plasma torch.
- Noticeable decrease in cut quality (e.g., excessive dross, poor edge finish).
- Increased moisture or oil visible in the air lines or on consumables.
- Frequent draining of the filter housing's moisture trap (if applicable).

If any of these signs are observed, inspect and replace the filter element immediately.

6. TROUBLESHOOTING

If you experience issues related to air quality or system performance after installing a new filter element, consider the following:

- **Air Leaks:** Check all connections around the filter housing and air lines for leaks. Even small leaks can compromise air pressure and filtration efficiency.
- **Incorrect Installation:** Ensure the filter element is seated correctly and the housing is properly sealed. Refer to Section 3.
- **Other System Components:** If air quality issues persist, the problem may lie with other components of the air preparation unit (e.g., regulator, coalescing filter, air dryer) or the air compressor itself.
- **Incorrect Part:** Verify that the installed filter element is indeed the Hypertherm 011110 and is compatible with your 011109 filter housing.

For persistent issues, contact Hypertherm technical support or a qualified service technician.

7. SPECIFICATIONS

Attribute	Detail
Brand	Hypertherm
Model Number	011110
Compatible Filter Housing	Hypertherm 011109
Material	Foam, Paper
Item Weight	1.6 ounces (approx. 45 grams)
Product Dimensions	1 x 1 x 6 inches (approx. 2.5 x 2.5 x 15.2 cm)
Number of Pieces	1
UPC	662310258719

8. WARRANTY AND SUPPORT

The Hypertherm 011110 Filter Element is covered by Hypertherm's standard warranty for consumable parts. For specific warranty terms and conditions, please refer to the documentation provided with your original Hypertherm plasma cutting system or visit the official Hypertherm website. For technical assistance, product inquiries, or to locate authorized service centers, please contact Hypertherm Customer Support:

- **Website:** www.hypertherm.com
- **Contact Information:** Refer to the "Contact Us" section on the Hypertherm website for regional phone numbers and email support.

When contacting support, please have your product model number (011110) and the model number of your plasma cutting system readily available.