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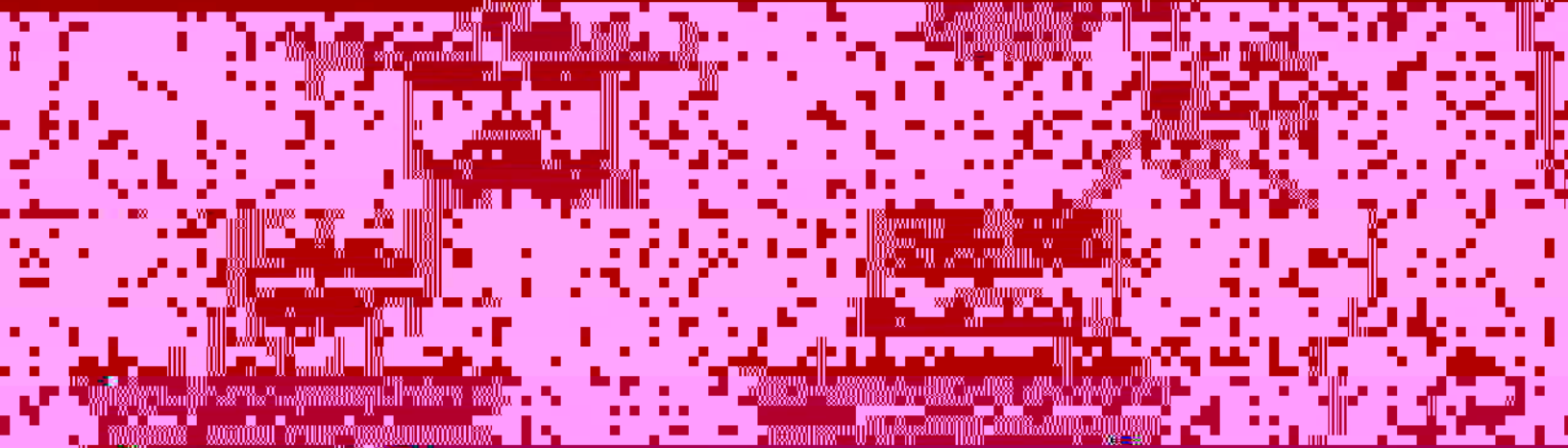
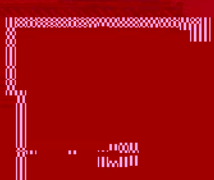
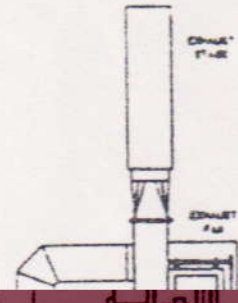
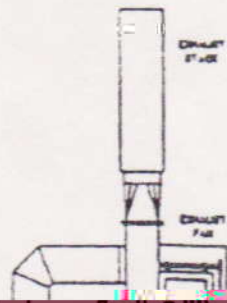
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Introduction

Thank you for choosing the Inline "VS" series Vertical Wet Scrubber. You have chosen the most reliable, efficient and most durable scrubber available on the market today. Inline has been tested by an independent laboratory and test results are based

on a 100% duty cycle. For more information, please contact us at 1-800-451-7829 or visit our website at www.inline.com.



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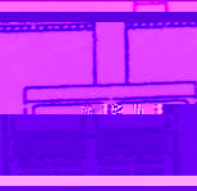
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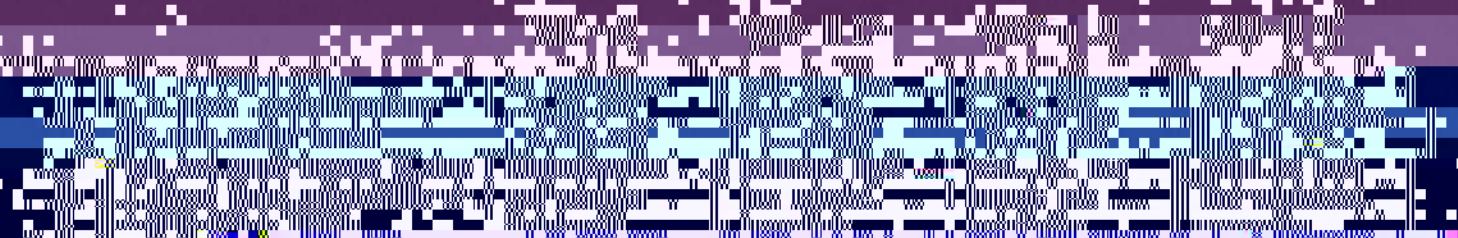
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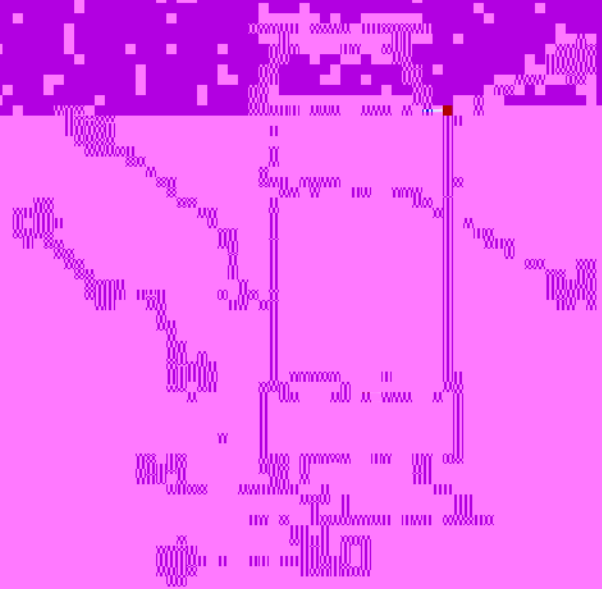
CHAPTER 1
SPARE PARTS LIST

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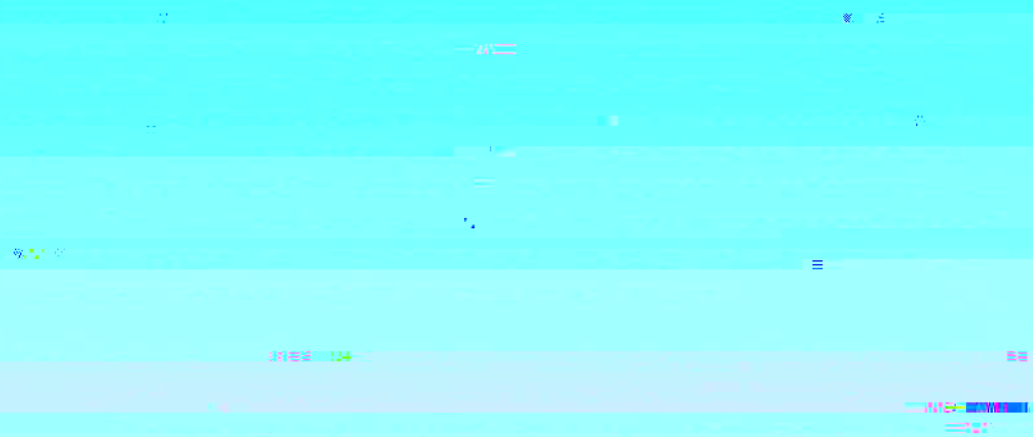
Chapter II

Installation

In-line scrubbers are designed to be easily installed by anyone with a basic knowledge of ventilation systems and plumbing. To insure trouble free performance, take a few minutes to read through this manual prior to installing your new scrubber. A local HVAC contractor can also be contacted for installation.

Location for Scrubber:

1. The "US" In-line Scrubber must be installed in a vertical position. The source of fumes to be scrubbed should be at the top of the scrubber (see combination chart Fig. 5.0 for exact dimensions).
2. A negative air pressure draw through the scrubber is required. This means that the blower fan is to be located on the outlet side of the scrubber (refer to Fig. 1.0 through Fig. 1.3 for typical installations). A positive air pressure is not required.



3. A water inlet and drain are required to keep water inside the scrubber body and drain it from the bottom. The water inlet should be located on the left side of the scrubber and the drain on the right side. The water inlet and drain should be connected to a water supply and a drain pipe, respectively.
4. Choose a location that will allow access to the water inlet and drain for periodic inspection and maintenance.
5. *When installing in a perchloric acid system use only the factory modified scrubber designed for perchloric acid use.
6. Although "US-Series" scrubbers are thoroughly tested prior to shipment, it is a good precaution to inspect and water test prior to installation, in the event

The Drain Line

1. The drain line is located at the base of the scrubber below the water inlet. It consists of an all clear outlet pipe (for visual inspection) and a P-Trap complete with wire fitting for disassembly. The drain terminates with a 1" FNPT fitting.
2. The pipe or hose attached to the drain should have a 1" minimum inside

Always support the down pipe to prevent sagging. Do not use a hose for the drain line. Do not use a pipe with a diameter less than 1 inch. Do not use a pipe with a diameter greater than 1 inch.

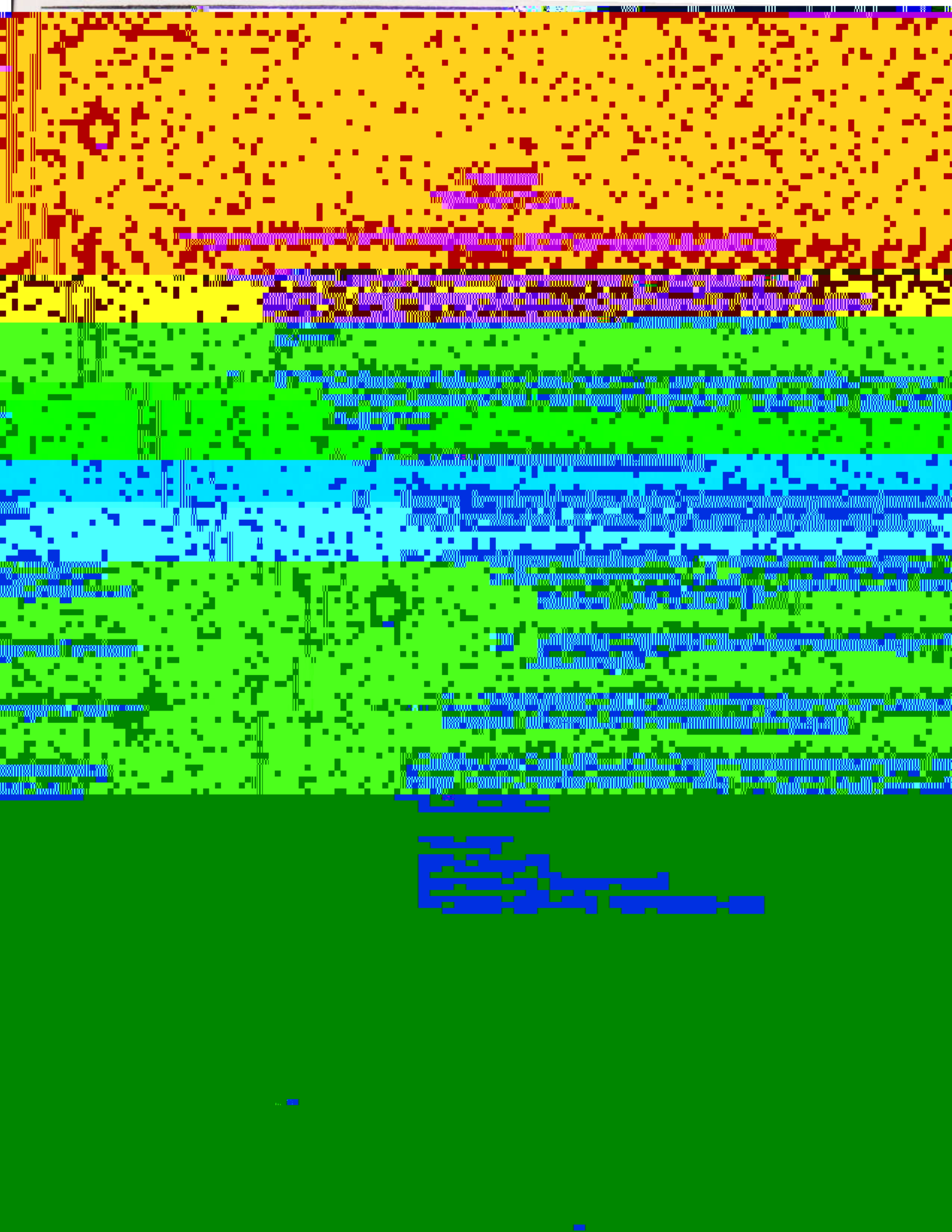
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for a minimum of 15 minutes. Inspect to assure that there is no



Fig 2.1



Installation

1. The water inlet is located on the side of the scrubber approximately half way up.

Water Inlet Connection

1. The water inlet is located on the side of the scrubber approximately half way up, with a 1/2" FNPT connection. Water requirements are 35-60 PSI line pressure at 8 GPH (gallons per hour) minimum. The spray nozzle it will be used on the

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Chapter 18

Maintenance

The **MS-1000** is a **highly reliable** and **long-lasting** **water spray nozzle** for **normal usage**. There are **no moving parts** to wear out and **no packing or gaskets** to increase in leakage. The only fact that will **reduce** its **operational life** is the **spray nozzle itself**. All other items are **designed** to **last** the **lifetime** of the **nozzle**.

Inspection of the Spray Nozzle.

1. Turn off the water supply line.

Remove the nozzle from the water supply line and inspect the nozzle for any damage. If the nozzle is damaged, it should be replaced. If the nozzle is not damaged, it should be used as directed.

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Maintenance

Inspection of the drain

1. The drain fitting is made of clear PVC material. Periodic visual inspection of liquid flowing through it is all that is required. If drainage is slow, or a build up is present, the drain may need to be cleaned. The scrubber will need to be shut down, and the water supply turned off for this procedure.
2. After the scrubber has drained, loosen the union nut on the P-trap drain and disconnect it from the P-trap drain fitting. Clean and dislodge any debris in the drain fitting. Inspect the drain line for any blockage or back ups, and clean as required.

Chapter IV

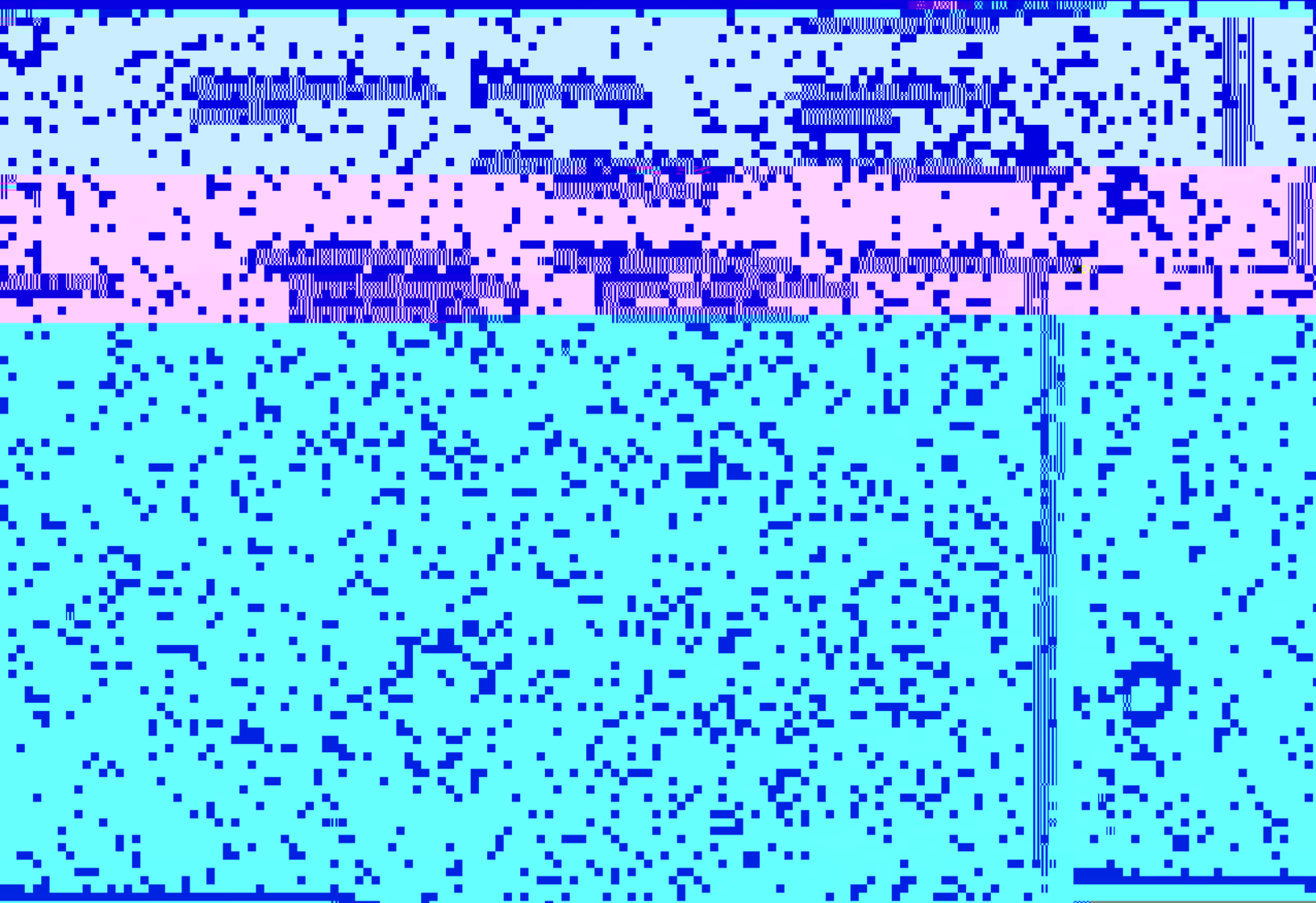
TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Water is leaking down inside of duct while scrubber is operating or when shut down	<ul style="list-style-type: none">- Drain outlet or drain line is plugged or restricted- Scrubber is not level	<ul style="list-style-type: none">- Locate source of the restriction and clean out (see drain inspection in chapter III)- Check scrubber to insure that it is in a vertical and level position
	<ul style="list-style-type: none">- Drain line size small	<ul style="list-style-type: none">- A 1/2" minimum drain line is required for proper drainage

Flow Control System

Throttle Control System

Pressure Control System



Chapter V

Specifications & Performance

inline

SPECIFICATIONS

" INLINE " FUME SCRUBBER

VS-8 VS-10 VS-12 VS-15

DEPTH WT.	18 LBS.	30 LBS.	45 LBS.	60 LBS.
	250 CFM	720 CFM	1185 CFM	1735 CFM
	MIN 35 PSI			

MIN 35 PSI

MIN 35 PSI

