1. System Overview

The **Thermaco, Inc. Trapzilla** Grease Interceptor collects 99% of free-floating grease & oils contained in kitchen drain water flows. As most food service facility managers already know, grease buildup inside a building’s grease containment system is a major cause of problems due to exterior drain line blockages. These problems jeopardize normal operations as well as create health and safety hazards within the facility itself.

The proper installation of a Trapzilla grease interceptor can reduce or eliminate grease problems and costly sewer surcharges and fines through 99% efficient separation and retention of free-floating grease & oils.

Trapzilla grease interceptors offers patented flat separation curve technology. This means that the unit does not lose grease separation efficiency as it fills with retained grease. Thus, the grease interceptor stores large quantities of grease without losing efficiency. The unique compact design of the Trapzilla allows for installation into most facilities. Options are available that enable a Trapzilla unit to be installed on the floor, suspended from the ceiling or in-ground outside the facility.

Trapzilla units are designed to treat high flows of kitchen drainwater with large grease storage capacity within a small footprint unit. These units are easy to maneuver into position and just as easy to plumb.

Hydromechanical grease interceptors, automatic recovery units, grease removal devices and other similar plumbing devices receiving kitchen flows from sinks, floor drains, woks and other food bearing sources may generate odors. There are many factors influencing odor evolution and dissemination. These include room ventilation, kitchen menu, ambient temperatures, ware washing practices, grease/oil input, daily input fluid volume, sanitizers, installation plumbing design and product maintenance/upkeep. Odors are usually prevented by good area ventilation, frequent fluid inputs, good product maintenance practices and proper product installation. Additional steps, including aeration, chlorination, pH control, improved area ventilation and additional maintenance may be needed at some sites.

*Devices formerly referred to as grease traps are now called hydromechanical grease interceptors.*
2. Models and Options

Thermaco offers different models and options specifically designed to assist the owner/installer meet site conditions while complying with local pretreatment and plumbing code.

2.1 Models

**TZ-1826**

1,826 pounds of grease storage, PDI and ASME rated at 100 gpm. Equipped with 4” inlet/outlet, 2” vessel vent connection, and 4” Low-Head Flow Control Accessory to limit flow to 100 gpm.

Comes with: Extension Collar Adapter Lid Assembly with two 18” tall extension collars and two 22” diameter lids.

**TZ-1826-SSA**

1,826 pounds of grease storage, PDI and ASME rated at 100 gpm. Equipped with 4” inlet/outlet, 2” vessel vent connection, and 4” Low-Head Flow Control Accessory to limit flow to 100 gpm.

Comes with: Extension Collar Adapter Lid Assembly with two 18” tall extension collars, two 22” diameter lids, external brace (not pictured) and SSA-1826 Support Stand.

*Models available with 6” Inlet/Outlet, add suffix -6 to model.*
2.2 Options (Some options must be purchased separately)

**SSA-1826**
Support Stand for TZ-1826 for Above-Ground Installations. Must be fully supported, not to be installed over grates.
*Included with TZ-1826-SSA Models

**FTCA-22**
Optional 22” diameter cover available for In-Ground installations. Provides a non-slip, diamond patterned aluminum replacement for the standard STC-22 cover. Each TZ-1826 would require two (2) FTCA-22 covers.

**ECA-TZ-29**
Optional, field-modifiable extension collars available to provide additional depth for existing kitchen drainage piping.
- TZ-1826-ECA Models ship with two (2) built-in 0-18” extension collars.
- ECA-TZ-29 adds 0-29” depth to -ECA model.
- Contact Thermaco before installing any Trapzilla more than 60” below grade from center of outlet pipe or in location where water table will ever rise above bottom of unit.
3. Plumbing Installation

3.1 Plumbing Considerations Prior to Installation

3.1.1 Locating the Unit
The system should be visible and easily accessible for maintenance and inspection. Options are available to install the Trapzilla in a basement, suspended from a ceiling or in-ground in an exterior location. Make sure adequate room is provided around the unit to allow easy access for a pump truck operator. Make sure the height above the Trapzilla access cover is enough to properly service the system.

3.1.2 Inlet/Outlet Piping
The inlet and outlet piping connections require flexible sleeve pipe couplings. Keep outlet piping as straight as possible. Thermaco, Inc. recommends installation of Two-Way Cleanouts on both the Inlet and Outlet of Trapzilla Interceptors and Solids Separators in accordance with all applicable laws, regulations and codes. These cleanouts should match the size of the Inlet and Outlet Piping (i.e. for 4” Inlet/Outlet piping, a 4” cleanout should be used). Use only “sweep” connections. Do not reduce the pipe sizing on the outlet piping. Do not install “P” trap on outlet connection of system. (Note: The system already has a internal gas trap)

3.1.3 Flow Controls
Trapzilla systems are supplied with a Low-Head Flow Control module (LHFC). This should be connected to the inlet of the Trapzilla unit in situations where flow rate needs to be restricted to the ASME rated flow or when vented flow control is required by local code.

3.1.4 Venting the Outlet
An outlet vent or approved air admittance valve of at least 1/2 the diameter of the system’s outlet connection must be present as close as possible to the Trapzilla outlet to prevent possible siphonage problems. The Vent on the Outlet piping is to be installed in accordance with all applicable laws, regulations and codes. Failure to provide a vent for the system voids Thermaco’s Limited Warranty for the system.

3.1.5 High Head Height Applications Over Six (6) Feet (1.95 m)
For installations where there is head height of greater than 6 feet (1.95 meters), Thermaco, Inc. recommends installation of a code-approved Vented Flow Control Assembly (Thermaco VFCA not included with Trapzilla).

Note: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.
3.2 Vessel Vent Connection

Venting of the tank is recommended by the manufacturer and required for in-door installations.

- Vent the tank through the provided 2” NPT threaded connector on the side of the tank (This vent may be located above the outlet or on the side of the tank depending on model).
- Remove and discard the plug and connect appropriate vent lines as indicated below (for 2” vent connection, use 2” pipe).
3.3 Plumbing Configurations

3.3.1 One TZ-1826

Each Trapzilla unit is shipped with a Low Head Flow Control module (see LHFC box for additional instructions). When applicable, this needs to be installed to the inlet of the Trapzilla and connected to a code-approved air intake. Thermaco, Inc. recommends installation of Two-Way Cleanouts on both the Inlet and Outlet of Trapzilla® in accordance with all applicable laws, regulations and codes. These cleanouts should match the size of the Inlet and Outlet Piping (i.e. for 4” plumbing, a 4” cleanout should be used). A Vent on the Outlet piping is also to be installed in accordance with all applicable laws, regulations and codes.

Note: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.
3.3.2 Installing Multiple Trapzilla Units in Parallel

Trapzilla Grease Interceptors should be installed in parallel with a Trapzilla Flow Splitter (MFSH-44 or MFSH-66) diverting the flow. Place Two-Way Cleanouts before, between and after the units as shown below, including before and after the flow splitter. Make sure to connect an outlet vent after each Trapzilla Grease Interceptor. A Low Head Flow Control (LHFC) is shipped with each unit, and if needed should only be installed after the first Cleanout and before the Flow Splitter.

*Use a Two-Way Cleanout before and after all Trapzilla Installations
3.3.3 Installing Multiple Trapzilla Units in Series

Alternatively, two Trapzilla Grease Interceptors, Solids Separators or a combination may be installed in series. A single Trapzilla Solids Separator and Trapzilla Grease Interceptor should always be installed in series. Place Two-Way Cleanouts before, between and after the units as shown below. Make sure to connect an outlet vent after the Trapzilla Grease Interceptor. A Low Head Flow Control (LHFC) is shipped with each grease interceptor and should only be installed after the first Cleanout and before the first grease interceptor.

*Use a Two-Way Cleanout before and after all Trapzilla Installations

Note: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.
4. Above-Ground Installation

4.1 Components for Above-Ground Installations
Using a model-specific Support Stand, a Trapzilla unit may be installed directly on top of the floor in a location such as a basement or mechanical room.

TZ-1826-SSA comes with SSA-1826 and external brace for above-ground installations. All TZ-1826 units come with built-in 18” Risers which must be cut down and secured in field.

The External Brace must be installed in above-ground installations or the warranty will be voided.

The SSA-1826 Support Stand is a one-piece assembly with a conical center that sits on the floor. It does not add appreciable height to the assembly.
4.2 Instructions for Assembling and Attaching External Brace

1. Place one rail on each side of TZ-1826 with tabs on top and bottom of center support rib.
2. Place one plate on top of center support rib and one on the bottom on each end of the TZ-1826. Align holes in the plates and rails.
3. Insert 2 bolts into holes at each corner. Add nuts and tighten to complete assembly.

4.3 Instructions for Installing Multiple Trapzilla Units Above-Ground

4.3.1 Installing TZ-1826-SSA with TSS-95-SSA in Series

When installing a TZ-1826-SSA Interceptor with a TSS-95-SSA Solids Interceptor in series, the change in elevation from the outlet of one of these smaller units to the inlet of the TZ-1826-SSA to the requires that the preceding unit be installed 8\" higher than the unit after it.
4.3.2 Construction of Riser for TSS-95-SSA installation in series with TZ-1826-SSA

For the installation of a TSS-95-SSA prior to the TZ-1826-SSA, a riser must be constructed to raise the smaller unit by 8" and provide full support for the weight of the interceptor and its contents.

4.3.3 Installing Multiple TZ-1826-SSA in Series

When installing multiple Trapzilla units in series, the change in elevation from the inlet to the outlet of a unit requires that each preceding unit be installed 1.5" higher than the unit after it. For above-ground units, pressure treated plywood may be placed fully beneath the support stand to create the height difference.

All installations inside of a building must have a vessel vent installed and be piped to atmosphere.

Note: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.
4.3.4 Installation of Pipe Hangers with Above-Ground Units

Trapzilla units installed indoors, above-ground require the use of pipe hangers (purchased separately) to properly support plumbing and reduce stress on connections with unit. Thermaco recommends the use of four (4) Zinc-plated Steel Loop Style hangers with 1000 lbs. work load limit for a single Trapzilla installation with two (2) hangers placed before inlet side cleanout and two (2) hangers placed after final cleanout.

Place each pair of hangers 35” apart (space-permitting) and no closer than 5” from any joint. When multiple units are installed place one (1) additional pipe hanger in between each unit, leaving 5” distance from unit and cleanout. Follow pipe hanger manufacturer’s instructions for physical installation.

Note: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.
5. In-Ground Installation Instructions

5.1 Plumbing Instructions for Single TZ-1826 Installed In-Ground

A Trapzilla unit may also be installed in the ground inside or outside of the facility. For instances where the facility drainage piping requires an extension collar that is more than the 18” provided by the built-in extension, the ECA-TZ-29 Extension Collar Assembly may be installed to align the Trapzilla inlet with the drainage piping. Thermaco, Inc. strongly recommends surrounding the in-ground Trapzilla with concrete to provide additional structural strength and to offset buoyancy effects. For Buoyancy Calculations & suggested concrete fill quantities please see page 17.

In-Ground Installations inside of a building must have a vessel vent installed and be piped to atmosphere.

Inlet
Outlet
Outlet Vent - extend to grade and cover or connect to facility
Build-in 18” extension collars
Vessel Vent - to atmosphere
Two-way cleanout before and after each unit, extend to grade.

Concrete surrounding unit body and extension collar.

Trapzilla cover - placed on top-most extension collar, to be accessible from ground level.
5.2 Plumbing Instructions for TZ-1826 with Optional ECA-TZ-29 Extension Collars (purchased separately)

In some cases, TZ-1826 may be installed in locations where built-in extension collar will not reach grade. In these cases, the two-piece ECA-TZ-29 Extension Collar (purchased separately) may be used to make lid accessible at ground level. Follow instructions included in ECA-TZ-29 packaging for installations. Each TZ-1826 would require two (2) ECA-TZ-29 if pipe depth requires.

* In-ground installation instructions only applicable for units installed 60” below grade to the center of the outlet pipe. Failure to abide by this instruction will result in voiding the warranty of the unit. In-Ground Installations inside of a building must have a vessel vent installed and piped to atmosphere.

5.3 Concrete Specifications for In-Ground Installation

Note: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.
In order to offset the effects of buoyancy caused by groundwater (high water tables), strengthen the sideload of the unit, and prevent movement of the unit in the event of shifting earth, Thermaco, Inc. recommends concrete be poured around the entirety of Trapzilla® units installed in-ground in the amounts of concrete specified in the table below. The concrete must to be poured continuously and completely surrounding the Trapzilla® body (and Extension Collars if applicable) to ensure proper strength and security at a compression strength of 4000 psi (C28/35).

5.4 Concrete Calculations for TZ-1826 Models/Components*

<table>
<thead>
<tr>
<th>Trapzilla Model</th>
<th>Weight in lbs. (Kg)</th>
<th>Volume in Cubic Yards (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TZ-1826</td>
<td>3950</td>
<td>1.0</td>
</tr>
<tr>
<td>ECA-TZ-29 (each)</td>
<td>600</td>
<td>0.20</td>
</tr>
</tbody>
</table>
5.5 Trimming and Setting the ECA-TZ-18 Single-Piece Extension Collar

In-Ground Trapzilla Models ship with a built-in, single-piece, 18" extension collar that must be trimmed and then set to the correct height to bring the Solid Top Cover to grade.

Follow the steps below to set the extension collar prior to backfilling the hole with concrete.

Step 1: With the Trapzilla unit installed in its permanent location, raise the telescoping extension collar to finished grade or floor level. Measure the height from the top of the unit to this finished extension collar height and record this dimension.

Note: If the floor will have a tile covering, allow for the tile thickness when determining the extension collar height.

Step 2: Remove the extension collar adapter ring from the unit with the extension collar still in place. On the underside of the cover, mark the excess extension collar length at the bottom of the four (4) "skirt" portions of the adapter ring. Check the extension collar height dimension frequently during this marking to ensure that the collar has not moved. Extend this mark between the gaps in the "skirt" so that the collar is marked all around.

Note: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.
Step 3: Remove the extension collar from the adapter ring and, with an appropriate saw, cut along the line created in Step 2 to remove the excessive extension collar.

Step 5: Working from the bottom of the assembly, install eight (8) self-drilling, self-tapping screws (provided) through the extension collar wall and into the adapter ring. Two of these screws should be installed in each of the four (4) skirt areas of the adapter ring. Check the extension collar height dimension frequently during this operation to ensure that the collar has not moved. Note: Use caution when tightening these screws to ensure that they do not strip.

Step 4: Reinsert the extension collar into the adapter ring ensuring that the cover alignment key on the extension collar is aligned with its recess in the adapter ring. Reset the extension collar height to the dimension determined in Step 1.

Step 6: Place the adapter ring/extension collar assembly onto the Trapzilla unit. Position the small cover onto the extension collar. Secure the adapter ring and the small cover with the brass nuts and flat washers provided. Seal the gap between the 18” extension collar and extension collar adapter ring using a silicone sealant.

IMPORTANT: Excess extension collar must be trimmed on all units. Do not allow additional extension collar to extend beyond bottom of adapter ring. On units where extension collar is completely recessed, the extension collar should still be secured and the excess extension removed as in step 3.
6. Unit Maintenance

6.1 Measuring Grease/Solids Levels

Due to its unique design, Trapzilla is capable of retaining high quantities of grease in a compact footprint. Therefore, unlike traditional interceptors, Trapzilla can hold an extraordinarily high percentage of its volume in grease without losing separation efficiency. To determine the current levels of grease/solids in your Trapzilla grease interceptor, follow the instructions below.

1. Remove four nuts/washers securing the 22” Solid Top Cover.
2. Place a grease/sludge dipstick into the center of the opening, making sure that it goes through the hole in the horizontal baffle.
3. Once the dipstick has found its natural resting place at the lowest point in the conical shaped bottom, take the measurement.
4. Remove dipstick and compare grease/sludge levels to the corresponding unit in the charts below.

<table>
<thead>
<tr>
<th>Grease</th>
<th>Solids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Capacity (depth):</td>
<td>Ready to pump at (depth):</td>
</tr>
<tr>
<td>TZ-1826</td>
<td>25”</td>
</tr>
</tbody>
</table>

Note: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.
6.2 Pumping/Servicing Unit

Periodically, the Trapzilla® unit will need to be serviced which involves pumping out all accumulated grease and solids. Pumping frequency may be set at a regular interval by sewer district (every 30-90 days). If not, determine pumping frequency using instructions in 6.1 to periodically measure grease/solids levels to determine appropriate timing for pumping. Follow instructions below to pump/clean out TZ-1826.

1. Each lid has four brass nuts securing the lid. Remove the four brass nuts from the bolts and fully remove the 22" lid to pump out. It is not necessary to remove adapter lid to pump out Trapzilla.
2. Begin by taking the grease from the top of the main chamber until all grease is removed.
3. Upon reaching the horizontal baffle, you will see a hole through which you may access the rest of the grease and the solids. Be sure to lower the hose all the way to the bottom of the Trapzilla unit on the outlet side so that solids may be entirely removed. The conical shape and natural grade of the unit will allow solids and grease to run to outlet side of unit.
4. Have kitchen run water into unit to flush any remaining solids to the outlet end of the unit.
5. If necessary, use a water hose with spray nozzle to rinse off inside of unit.
6. Secure lids in place and instruct kitchen to run water into unit until full.

DO NOT use mechanical crust breaking devices to break down any mat that has formed inside the Trapzilla unit.

DO NOT use grinding augers in maintenance of the Trapzilla unit.
7. Limited Warranty and Remedy

Thermaco Incorporated warrants to the original user that the outer tank and inner tank components of the product manufactured by Thermaco and delivered with this warranty (the "Product") shall be free from material defects in workmanship and materials during the lifetime of the plumbing system in which the Product is initially installed. Notwithstanding the foregoing, this warranty shall not cover, and Thermaco shall have no obligation to repair or replace, any of the following component parts of the Product: lid, gaskets, brackets, nuts, and flow control.

Any and all warranty claims must be made in writing to Thermaco at 646 Greensboro Street, Asheboro, NC 27203 promptly after discovery of the defect giving rise to the warranty claim. Following and subject to Thermaco’s preliminary approval of a warranty claim, the warranted Product must be delivered, prepaid, to Thermaco, together with proof of purchase and a return authorization number issued by Thermaco. If Thermaco determines that the Product is defective, the defect is covered by this warranty, and the warranty conditions are satisfied, Thermaco’s sole obligation under this warranty, and the sole and exclusive remedy with respect to any such defect, is the repair or replacement, at Thermaco’s option, of the defective equipment, component, or parts. Any replacements will be furnished F.O.B. point of shipment. Thermaco reserves the right to ship the user replacement parts with installation instructions. If Thermaco determines that the part, component, or the Product is not defective or that any condition of this warranty is not satisfied, then Thermaco shall have no obligation to repair or replace any such part, component, or the Product, and any costs associated with the return of such part, component, or the Product shall be borne by the party making the warranty claim.

This warranty shall not cover any defect in an otherwise covered Product resulting directly or indirectly from (and the occurrence of any of the following shall void any otherwise applicable warranty claim): (i) failure to install, operate or maintain the product in accordance with the Installation and Operation Manual that was included with the Product when it was sold and all other applicable Thermaco instructions and procedures, including, without limitation, use of mechanical crust breaking devices, use with grinding augers, use in excess of rated flow, use in excess of rated grease capacity, use to remove emulsified fats and oils or use that fails to comply with applicable laws, regulations or codes; (ii) damage in transit, handling or installation; (iii) modifications, adjustments, repairs, or alterations made by persons other than Thermaco representatives or certified plumbers; (iv) any change in the original installation or change to the original use of the Product; or (v) other causes not arising out of defects in workmanship or materials. Thermaco shall not be responsible for damage to products resulting from ultraviolet light exposure, floating of tank, vault flooding, sewer line back-up, pumping or lift station failure, ambient water flow, freezing, or other sources of water damage. This warranty does not cover equipment or parts not manufactured by Thermaco. Original user’s costs relating to any service, adjustment, removal, repair, packing, or otherwise incurred with respect to the defect prior to submission for warranty are the responsibility of the original user. No distributor, sales person or other person is authorized to make any warranty statements on behalf of Thermaco regarding Thermaco products other than as set forth in this warranty. This statement of warranty supersedes and replaces any quote, brochure, or other statement or document with respect to warranty of the Product.

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The sole and exclusive remedy with respect to this warranty or any other claim relating to defects or any other condition or use of Products, however caused, and whether such claim is based upon warranty, contract, tort, strict liability or any other theory, is LIMITED to the repair or replacement of the affected Product, component, or parts, in each case excluding labor or any other cost to remove or install the Product or, at Thermaco’s sole option, refund of the original purchase price. IN NO EVENT SHALL THERMACO BE LIABLE, WHETHER IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, INDEMNITY OR ANY OTHER LEGAL THEORY, FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR ANY OTHER LOSS OR COST OF A SIMILAR TYPE, UNDER NO CIRCUMSTANCES WILL THE AGGREGATE LIABILITY OF THERMACO FOR ANY CAUSE OF ACTION RELATED TO THE PRODUCT COVERED HEREBY EXCEED THE NET PURCHASE PRICE RECEIVED BY THERMACO FOR THE PRODUCTS. This Warranty is made only for the benefit of the original user and is void upon any transfer of ownership or changes in installation. Note: Do not Pressure/Hydrostatic test our Products.
For additional information on Trapzilla or other Thermaco products, please visit www.trapzilla.com or call at 1-800-633-4204.