

Do More in Less Space Using Trapzilla Grease Interceptors, Solids Separators and Options

See how Trapzilla will work for you at Trapzilla.com



Trapzilla[®] Models:





Why Choose a Trapzilla[®] Grease Interceptor?

Commercial kitchens need grease interceptors to remove grease from their wastewater streams. Without them, grease can build up in plumbing and sewers. That jeopardizes normal kitchen operations, creates health and safety problems, and can lead to costly fines.

Trapzilla[®] Grease Interceptors have several advantages over other systems.

High Capacity

Trapzilla interceptors use most of their interior volume to store grease while other interceptors can only be filled to 25%. Our smallest model can hold more than 160 pounds of grease and our innovative TZ-1826 can hold as much as a conventional 1,000-gallon interceptor.

High Efficiency

Even as they fill to capacity, Trapzilla interceptors continue to remove grease from wastewater. Other interceptors become dramatically less efficient.

Compact Size

Trapzilla's innovative design enables it to store more grease in a small volume. Trapzilla Grease Interceptors can be installed in spaces other grease traps don't fit.

Flexible Installation Options

Trapzilla can be installed in the ground, on the floor of a basement, or even between floors of a building. Its lightweight, compact design allows it to be maneuvered into position with minimal labor.

Durability

Trapzilla Grease Interceptors are made of durable, corrosionresistant polyethylene, giving them a long life. All Trapzilla Grease Interceptors come with a *limited lifetime warranty*.

Cost Efficiency

Because of its installation flexibility, Trapzilla Grease Interceptors often have lower total cost of ownership than other interceptors. This minimizes the cost of complying with wastewater pretreatment regulations.

Durable, failure-resistant unibody design.

The main tank including the inlet and outlet are constructed of a single piece of rotationally molded polyethylene. Inlet and Outlet piping is secured using a patented interior radial compression ring. Some interceptors use PVC piping attached via glue or clips to a storage tank, creating the risk of failure at those attachment points during routine servicing. Trapzilla's unibody design is stronger and more durable.

Horizontal baffles that boost efficiency.

The interior horizontal baffle keeps turbulence inside the Trapzilla models below the trapped grease. That helps keeps separation efficiency high (above 99%) even as it fills with trapped grease. Previously separated grease is retained in the upper chamber and is not subject to the effects of emulsified flows or hydrolysis which pulls grease out of traditional passive interceptors.

Sloped bottoms reduce buildup.

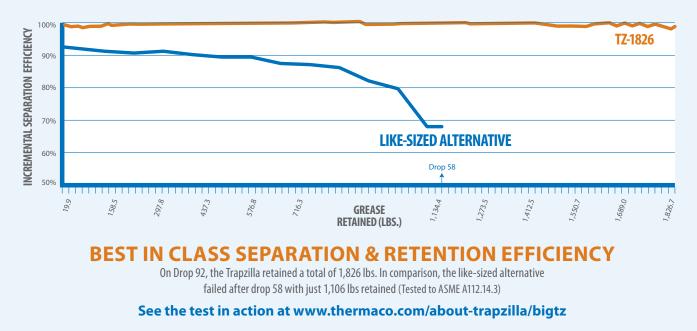
In many flat-bottomed, square interceptors, grease is literally trapped in the bottom corners and builds up. This lowers the efficiency of those units and reduces the amount of grease they can collect between pumpings. Trapzilla's sloped bottom prevents that build-up and helps keep efficiency in the unit high — allowing it to hold a higher percentage of its volume in grease between pumpings.

Efficiency that lasts.

Traditional concrete interceptors are usually pumped out after only 25% of their volume is full, or they won't keep fats and oils out of sewers. Trapzilla systems are designed to hold a majority of their volume in grease before they must be pumped out.

The TZ-1826, for example, is designed to hold 91% of its volume in grease.

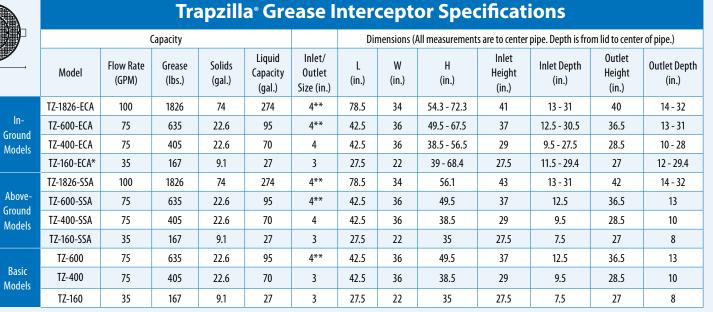
After 41 hours of testing to the ASME Standard, with 1,826 pounds of retained grease, the TZ-1826's accumulated efficiency was still 99.2% – even at 100 gallon per minute test conditions. This allows the TZ-1826 to hold nearly a ton of fat, oil and grease in a volume of 274 gallons – one-fourth the size of a 1,000-gallon concrete interceptor with a similar grease capacity. The TZ-1826 also holds almost 70% more grease than any other hydromechanical interceptor of comparable size.



How does a Trapzilla[®] Grease Interceptor work?



Inlet	



*TZ-160-ECA uses Two-Piece Extension Collar (ECA-TZ-29) instead of Single-Piece Extension Collar (ECA-TZ-18)

**4" Inlet/Outlet Standard, 6" Models Available. Specify by adding -6 to end of model.

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Where can I install Trapzilla[®]?

Installation Versatility

Trapzilla[®] was designed to efficiently handle the separation of fats, oils and grease without taking up as much space as a traditional concrete interceptor. Its compact design allows it to fit into locations that larger interceptors cannot while still protecting sewers. It has been installed in thousands of sites around the world including:



Even the TZ-1826, designed to handle the same amount of grease as a 1,000-gallon concrete trap, is just 34 inches wide. It can be maneuvered through doorways for simple, interior installations. Trapzilla's compact footprint and large capacity make it easy to couple together grease interceptors and solids separators for the perfect amount of storage, no matter the job.

Areas

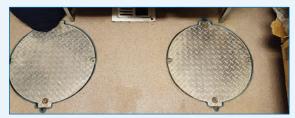
Trapzilla Installations





TZ-1826-ECA Installed in Green Space Outside of Nursing Home



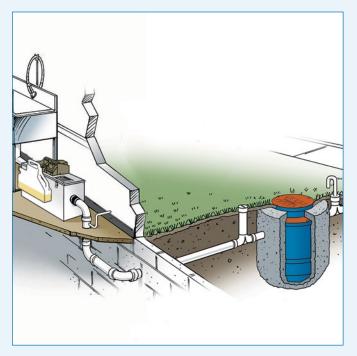


Trapzilla® TZ-1826-ECA Installed In-floor in a major Fast-Casual Burger Chain using FTCA-22 Lids





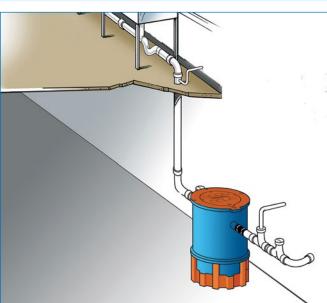
Failing Steel Interceptor Replaced with TZ-400 in Traffic Rated Zone Outside Fast-Casual Restaurant using One-Pour System



In-ground Trapzilla[®] Models

Key Features

- Designed for indoor or outdoor in-ground installations
- Constructed of durable, rotationally molded polyethylene
- Features Extension Collar Adapter Ring with built-in 18-inch (45.7 cm) tall single-piece extension collar and 22-inch (55.9 cm) diameter solid top cover. TZ-160-ECA has a 29-inch (73.7 cm) extension collar.
- Uses a 29-inch (73.7 cm) two-piece Extension Collar to provide additional depth
- 6-inch (150 mm) inlet/outlet available on the TZ-600-ECA and TZ-1826-ECA
- Limited lifetime warranty



Above-ground Trapzilla[®] Models

Key Features

- Designed for indoor, above-ground installations
- Constructed of durable, rotationally molded polyethylene
- Includes Support Stand Assembly for floor installation
- Uses a standard Adapter Ring with 22-inch (55.9 cm) diameter solid top cover
- 6-inch (150 mm) inlet/outlet available on the TZ-600-SSA and TZ-1826-SSA
- Limited lifetime warranty

Basic Trapzilla® Models

Key Features

- Additional options available for indoor or outdoor, in-ground or above-ground installations
- Constructed of durable, rotationally molded polyethylene
- Includes a standard Adapter Ring with 22-inch (55.9 cm) diameter solid top cover
- Uses a 29-inch (73.7 cm) tall two-piece Extension Collar to provide additional depth
- 6-inch (150 mm) inlet/outlet available on the TZ-600
- Limited lifetime warranty



In-Ground Models



TZ-160-ECA 35 GPM (2.21 I/s)



TZ-400-ECA 75 GPM (4.73 l/s)



TZ-600-ECA 75 GPM (4.73 l/s)



TZ-1826-ECA 100 GPM (6.31 I/s)

Above-Ground Models



TZ-160-SSA 35 GPM (2.21 l/s)



TZ-400-SSA 75 GPM (4.73 l/s)



TZ-600-SSA 75 GPM (4.73 l/s)



100 GPM (6.31 l/s)

Basic Models



TZ-160 35 GPM (2.21 l/s)



TZ-400 75 GPM (4.73 l/s)



TZ-600 75 GPM (4.73 l/s)



Trapzilla Installations



Two TSS-95 Solids Separators in front of two TZ-600 Grease Interceptors servicing a large cafeteria in a high-rise office building.



A Solids Separator installed ahead of a Trapzilla[®] GI servicing the food prep area of a national grocery chain.

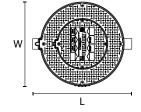


Trapzilla® Grease Interceptors and Solids Separators Servicing a Major International Hospital

How Solids Separators Reduce Maintenance, Boost Efficiency

Most grease interceptors are capable of effectively removing enough fats, oils, and grease from kitchen effluent, but struggle to handle solids as efficiently. When large quantities of food waste or other solids

go down kitchen drains, they can fill up your grease separator prematurely and interfere with its regular operation. That means more frequent visits from the pump truck to empty it out (and thus higher costs). Accumulated solids also run the risk of creating blockages in your internal plumbing, leading to unnecessary repairs.



Trapzilla[®] Solids Separators can be used with Trapzilla[®] Grease Interceptors, plumbed in prior to Thermaco's Big Dipper[®] Automatic Grease Removal Devices, or by themselves when large quantities of solids must be removed from kitchen wastewater.

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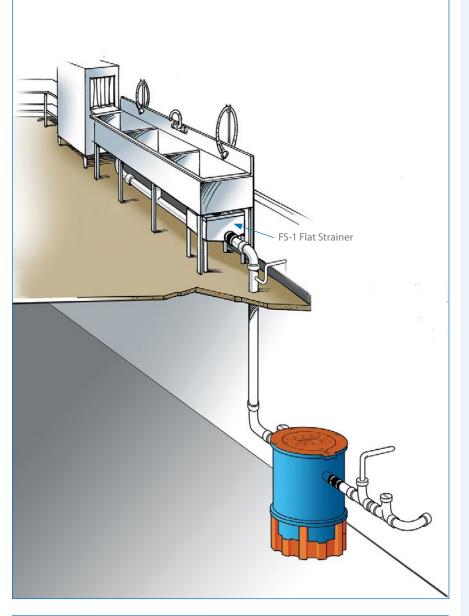
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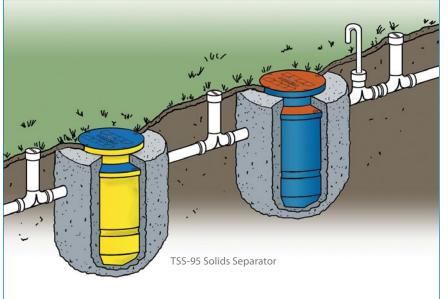
Trapzilla[®] Solids Separator Models have the same footprint and design as their Trapzilla[®] Grease Interceptor counterparts of like liquid capacity, making installation of additional units easy!



	Trapzilla [®] Solids Separator Specifications											
				Dimensions (All measurements are to center pipe. Depth is from lid to center of pipe.)								
	Model	Flow Rate (GPM)	Solids (gal.)	Liquid Capacity (gal.)	Inlet/ Outlet Size (in.)	L (in.)	W (in.)	H (in.)	Inlet Height (in.)	Inlet Depth (in.)	Outlet Height (in.)	Outlet Depth (in.)
In-Ground	TSS-95-ECA	150	95	95	4**	42.5	36	49.5 - 67.5	37	12.5 - 30.5	36.5	13 - 31
	TSS-70-ECA	75	70	70	4	42.5	36	38.5 - 56.5	29	9.5 - 27.5	28.5	10 - 28
Models	TSS-27-ECA	35	27	27	3	27.5	22	39 - 68.4	27.5	11.5 - 36.9	27	12 - 37.4
Above-	TSS-95-SSA	150	95	95	4**	42.5	36	49.5	37	12.5	36.5	13
Ground	TSS-70-SSA	75	70	70	4	42.5	36	38.5	29	9.5	28.5	10
Models	TSS-27-SSA	35	27	27	3	27.5	22	35	27.5	7.5	27	8
Basic	TSS-95	150	95	95	4**	42.5	36	49.5	37	12.5	36.5	13
	TSS-70	75	70	70	4	42.5	36	38.5	29	9.5	28.5	10
Models	TSS-27	35	27	27	3	27.5	22	35	27.5	7.5	27	8

TZ-160-ECA uses Two-Piece Extension Collar (ECA-TZ-29) instead of Single-Piece Extension Collar (ECA-TZ-18) **4″ Inlet/Outlet Standard, 6″ Models Available.





Trapzilla[®] Solids Strainer Options

To help reduce the amount of incidental food solids collected in the Trapzilla[®] Grease Interceptor, Thermaco[®] offers several options.

Point Source Incidental Solids Separation Options

The Flat Strainer (FS-1) separates and collects incidental solids such as rice, coleslaw and other food scraps larger than 0.125 inches (3.175 mm) in diameter found in point source drain flows. Designed to replace food disposals. Dewatered solids may be emptied into a trash container. Other options available from Thermaco[®] include the Inline Strainer (ILS-1) and External Strainer (ESU-1).

Trapzilla[®] Solids Separators

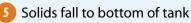
The Trapzilla[®] Solids Separator (TSS) separates and collects all sizes of incidental solids. Designed to collect incidental solids in a central location, the TSS is installed upstream of the Trapzilla[®] Grease Interceptor. Three convenient sizes are available: the TSS-27 stores 27 gallons (102 liters) of solids while the TSS-70 stores 70 gallons (265 liters) of solids, and the TSS-95 stores 95 gallons (360 liters) of solids.

> Installing a new grease interceptor? It's more cost effective to install a solids separator at the same time.



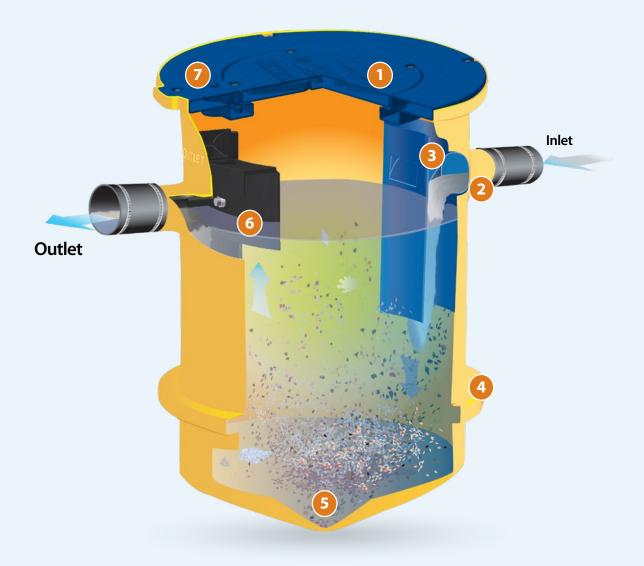
How does a Trapzilla[®] Solids Separator work?

- ECA models have built-in extension collar; Additional extension collars may be installed to meet installation depth
- 2 Drain water from source enters through inlet baffle
- **3** Solids forced downward by horizontal baffle
- 4 Anchor Rings for in-ground installation (in concrete)



- Clean water exits through outlet
- 7 Easy to remove cover offers quick access to unit for pumping

Vessel Vent Connection on side of unit (not shown)



Solids-laden effluent from the kitchen flow is slowed and forced downward in a vertical baffle, where solids filter out of the flow and sink to the bottom of the solids storage area. The "cleaned" effluent flows through the outlet. Pumping the Trapzilla[®] Solids Separator is easy—the pumper removes the lid and vacuums out the solids.

Key Features

- Constructed of durable, rotationally molded polyethylene
- Compact design uses space efficiently to maximize solids storage capacity

- 29-inch (73.7 cm) Two-Piece Extension Collar can provide additional depth (see page 12)
- 6-inch (150 mm) inlet/outlet available on TSS-95 Models

In-Ground Models

Key Features

- Designed for indoor or outdoor in-ground installations
- Extension Collar Adapter Ring with Built-in 18-inch (45.7 cm) Single-Piece Extension Collar and 22-inch (55.9 cm) Diameter Solid Top Cover
- TSS-27-ECA has 29-inch (73.7 cm) extension collar

Above-Ground Models

Key Features

- Designed for indoor, above-ground installations
- Includes Support Stand Assembly for floor installation
- Standard Adapter Ring with 22-inch (55.9 cm) diameter Solid Top Cover







TSS-27-ECA 35 GPM (2.21 l/s)

TSS-70-ECA 75 GPM (4.73 l/s)

TSS-95-FCA 150 GPM (9.46 l/s)

TSS-27-SSA 35 GPM (2.21 I/s)



TSS-70-SSA

75 GPM (4.73 l/s)

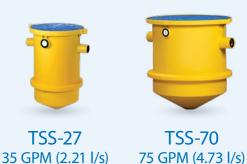


TSS-95-SSA 150 GPM (9.46 l/s)

Basic Models

Key Features

- Additional options may be purchased for indoor or outdoor, in-ground or above-ground installations
- Standard Adapter Ring with 22-inch (55.9 cm) diameter Solid Top Cover







TSS-95 150 GPM (9.46 l/s)



Trapzilla[®] Installation Options and Configurations

Its lightweight and compact design enables Trapzilla[®] to be installed in places where standard grease interceptors would not fit or could not be accommodated. Trapzilla[®] Options allow a variety of space saving, code friendly, and creative installations.

29" Extension Collar Assemblies

Used with in-ground and in-floor installations. Aids in lining up facility drainage piping when located deep in the ground. Compatible with Standard Adapter Ring on Basic/Above-ground Models and 18-inch Built-In Extension Collar on In-ground Models.

Support Stand Assemblies

Used to support the Trapzilla[®] unit when installed directly on the floor of a basement or mechanical room.



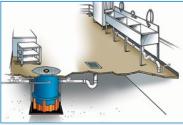
Provides a sturdier non-slip cover when a Trapzilla[®] unit is installed directly in the floor or locations where the cover may be in high foot-traffic areas. Fabricated of durable aluminum with a diamond plate surface.

Hanging Assemblies

Used to support a Trapzilla[®] unit when installed between floors. Includes Support Stand Assembly. Trapzilla[®] unit must be purchased separately.

Use HA-70/95 for TSS-70/95 Models and HA-400/600 for TZ-400/600 Units.



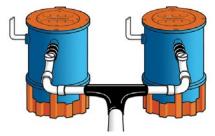


TZ-600 installed between floors using Hanging Assembly & FTCA-36

SSOP-70/95

Flow Splitters

Used when plumbing twin Trapzilla[®] units in parallel. Splits and diverts kitchen flow into two separate, equal flows when two Trapzilla[®] units are necessary. Four Trapzilla[®] units can be plumbed using three flow splitters. Flow Splitters available for 4" models (MFSH-44) and 6" models (MFSH-66).







SSOP-400/600

Trapzilla[®] Sample Ports



A Better Way to Sample

Municipal authorities around the world now require facilities to install a sampling port to gather and test effluent wastewater. This includes a sample well or a separate chamber downstream of the facility. In many cases, installation of a conventional sample well is a significant expense. Trapzilla[®] Sample Ports offer an affordable and accurate alternative to those large sample wells.

Easy, Versatile Installation

Trapzilla[®] Sample Ports are designed for easy installation and may be installed inside or outside the facility on the wastewater drainage piping. An optional, field-modifiable extension collar is available for installations where the piping is deep in the ground. The Two-Piece Extension Collar features a telescoping design, making it easier to cut and set. The Sample Ports are small and lightweight and can be easily carried through regular doorways and down commercial facility staircases for basement installations.

Works with Any Interceptor

While Thermaco[®] recommends its use with Trapzilla[®] Grease Interceptors, a Trapzilla[®] Sample Port can be used with any grease interceptor, or oil/water separator on a 4-inch line. Additionally it can be installed in facilities that are not required to use interceptors but are still expected to meet certain discharge standards (industrial processes, commercial facilities).

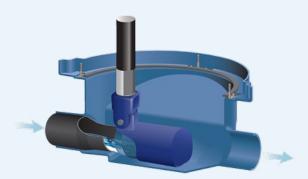
Use with the Trapzilla° GrabSampler™ for Easy Sampling

Thermaco[®] recommends the use of its GSA-1 GrabSampler[™] (sold separately), specifically designed to work with Trapzilla[®] Sample Ports, for optimal results. The GrabSampler[™] is designed to nest in the TZSP-40 or TZSP-48 and has a simple, adjustable jar carrier that can be used at any angle to gather samples.



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TZSP-40

The TZSP-40 can be installed on existing lines using its patented flume to narrow and accelerate incoming flows allowing horizontal sample filling access despite the lack of a substantial fall gradient. When sampling a TZSP-40, the GrabSampler[™] lays nearly flat in the sample port. The TZSP-40 is also suitable for composite sampling applications.

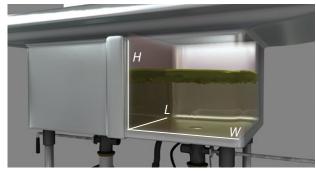
TZSP-48

The TZSP-48 features an 8-inch fall to meet codes requiring vertical waterfall filling access. When sampling a TZSP-48, the GrabSampler[™] sits vertically in the sample port. The flume narrows the flow path of incoming water, preventing the build-up of sediment in the inlet and accelerating the flow into the jar.

Choosing the Right Trapzilla[®] for You

Step One: Determine Flow Rate

Trapzilla Grease Interceptors are rated according to the ASME A112.14.3 standard to separate grease efficiently at or below a specific flow rate. This sizing methodology uses the principle that the highest potential flow rates in a kitchen come from impounded water flows when full sinks are emptied. In order to determine the maximum potential flow for your kitchen, each sink compartment connected to the grease interceptor must be sized using the formula below.



However, it is important to note that it is extremely unlikely that every

sink will be emptied at the same time in a restaurant. A WERF Study indicated that the average restaurant rarely sees flows higher than 5gpm and never exceeded 25gpm. While it is valuable to protect against overflows, it is important to understand that restaurants rarely reach 1/3 of peak flow.

Add together flow rates of fixtures feeding to Trapzilla[®] while understanding that restaurants rarely reach 1/3 of peak flow.

Number of Compartments	x	Compartment Volume in Inches (L x W x H)	x	.75*	÷	231** ÷	2***	=	Flow Rate (Gallons Per Minute)
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*The PDI-G 101 standard for calculating flow rate assumes a sink will not be filled to more than 75% of its volume.

**One gallon of water is 231 in³. In dividing by 231, the unit of measure is converted from cubic inches to gallons.

***The PDI-G 101 and ASME A112.14.3 standards, by which hydromechanical interceptors are certified, use a 2 minute drain to determine flow rate.

Note: Always use next larger size unit than the calculated flow rating.

To minimize grease/detergent emulsification, plumbing dishwashers directly into the sanitary sewer line is recommended. Consult local codes or a licensed plumber when considering plumbing a dishwasher to a Trapzilla unit.

Thermaco recommends the use of the TSS Trapzilla Solids Seperator (in conjunction with a downstream Trapzilla Grease Interceptor) when used in facilities where heavy loadings of incidental solids content in the effluent flow.

Step Two: Determine if Additional Grease Capacity is Needed

Should extra capacity be necessary to meet local code or to decrease pumping frequency, a larger unit may be selected or additional Trapzilla units may be added.

Trapzilla Grease Interceptors not only meet, but exceed the grease capacity required by the ASME A112.14.3 Standard for Hydromechanical Grease Interceptors. The unique design of Trapzilla maintains a flat separation curve within the unit until it reaches 100% capacity, so it has the same separation efficiency from day one until it is full. Trapzilla[®] units are tested to the third-party ASME A112.14.3 Standard and outperform other grease interceptors of like flow rating, storing as much as 9X more grease than the test requires!



Trapzilla[®] **Grease Interceptor Capacities** (Capacities determined through third party certification to ASME A112.14.13 Standard)

	Flow Rate (GPM)	Minimum ASME Requirement (lbs.)	Actual Grease Retained (Ibs.)	Actual Grease Retained (gal.)	Tot. Liquid (gal.)	Grease Retained as % of Volume	Grease Retention Efficiency
TZ-1826	100	200	1826.7	248.8	274	91% CHAMPION	99.2%
TZ-600	75	150	635.6	86.6	95	91% CHAMPION	96.7%
TZ-400	75	150	405.6	55.6	70	79% CHAMPION	94.0%
TZ-160	35	70	167.65	23.0	27	85% CHAMPION	97.9%

If additional capacity is needed to meet local code, Trapzilla units should be installed in parallel when possible using a Trapzilla Flow Splitter for equal distribution of flow and maximize the unique storage capacity of the units.

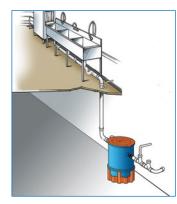
Step Three: Determine Installation Conditions

Trapzilla offers a variety of models designed to meet your specific installation conditions. See pages 6-7 for additional information on these models. Specifications are available online at

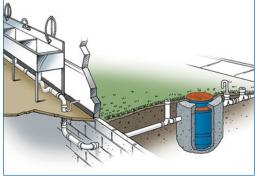
Location: Installation Type: **Recommended Solution:** Indoors In-Ground In-Ground Model* Above-Ground Above-Ground Model Indoors Indoors Hanging Between Floors In-Ground Model* + Hanging Assembly** Outdoors In-Ground Model* In-Ground Outdoors Above-Ground Above-Ground Model

http://thermaco.com/about-trapzilla/specifications

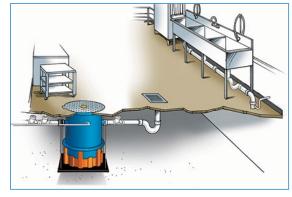
* In certain cases where pipe depth can be set, extension collar may not be necessary. Base model may be purchased and installed in these instances.



TZ-600-SSA installed in Indoors & Above-Ground



TZ-600-ECA installed in Outdoors & In-Ground



TZ-600 installed Indoors & Hanging Between Floors using HA-400/600. Shows optional FTCA-36 Aluminum Cover with 4" Brass Cleanout

Step Four: Choose Additional Options

Options are available depending upon the type of installation. Additional extension collars may be necessary depending upon pipe depth. Be sure to determine depth from ground to center of pipe to make sure you have the correct options specified.



And more...

Additional Options including in-kitchen solids strainers, horizontal air gap assemblies, and automatic grease removal devices may be found on the Thermaco website at <u>thermaco.com/about/our-products</u>

Don't Settle for Yesterday's Grease Interceptor

For years, restaurants and other commercial food service establishments have been using the same technology to protect their local wastewater system and meet regulatory requirements.



Large concrete interceptors may be easy to purchase, but installing them in an existing site can be difficult and costly, especially in urban locations.

Additionally, concrete interceptors are prone to failure over time as concrete erodes and baffles are damaged during servicing, putting restaurants and sewer districts at risk.

Instead, choose the interceptor designed to last and protect commercial kitchens and sewer collection systems with maximum efficiency in a compact footprint.

Choose the most efficient grease interceptor on the market today!



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www.trapzilla.com





Requirements of ASME A11



 SPECIFICATIONS SUBJECT TO CHANGE. US & INTERNATIONAL PATENT/PATENTS PENDING.

 6,849,176
 6,878,270
 7,153,439
 7,186,346

Please Consult Thermaco, Inc. for details on the specific models tested, certified, accepted and/or listed by these organizations and for proper installation procedures.