

ENDURA® GREASE INTERCEPTOR

ENGINEERING AND INSTALLATION MANUAL

General Data

Congratulations on your purchase of the Endura Grease Interceptor. The Endura Grease Interceptor was designed and built to last and comes with a 10-year warranty (valid only when the warranty card is filled out and returned to the manufacturer).

Proper installation of a grease interceptor is critical to its efficient operation. Even the best designed grease interceptor will not operate efficiently if installed incorrectly. **All installation recommendations are subject to the approval of the local code authority having jurisdiction.**

The Endura Grease Interceptor may be installed on the floor, partially in the floor, or fully recessed below the floor to best suit the situation. Whichever installation configuration is used, make sure you locate the grease interceptor in an area that allows for ease of maintenance. Placement should allow the cover to be easily removed for cleaning. A minimum clearance is required above the top of the Grease Interceptor to allow removal of the internal baffles for a complete cleanout (15/20/25/30 GPM - 12", 50 GPM - 18"). With the cover removed, all internal surfaces should be visible. This is necessary not only for access to clean the interceptor, but also to inspect the interior for potential problems.

The Endura Grease Interceptor is marked with "IN and Out" above the connections to ensure the grease interceptor is installed in the right direction. The grease interceptor should be installed as close as possible to the fixture(s) being served, as every foot of piping between the grease source and the interceptor is unprotected and a potential source for grease build-up. Installations requiring long runs of pipe [exceeding 25 feet (8m)] to reach the interceptor are to be avoided. This precaution will reduce the possibility of the pipeline becoming clogged with grease before reaching the grease interceptor. Grease waste lines should be piped at a minimum slope of 1/4 inch per foot (6mm per 304mm) to maintain flow in the drain line.

Dishwashers

If local codes permit, the Endura Grease Interceptor can be connected to dishwashers. To prevent industrial grade detergents from compromising the efficiency of the system, a separate grease interceptor is recommended for each commercial dishwasher.

The Plumbing and Drains Institute (PDI) has done extensive testing on the effect of hot water on separation, and can support through data, the fact that hot water has little effect on separation efficiency. The Environmental Protection Agency (EPA), in their document EPA 625/1-80-012 (Design Manual: Onsite Wastewater Treatment and Disposal Systems) is specific in recommending the use of hot water and proximity to the source to enhance retention of fat oil and grease (FOG).

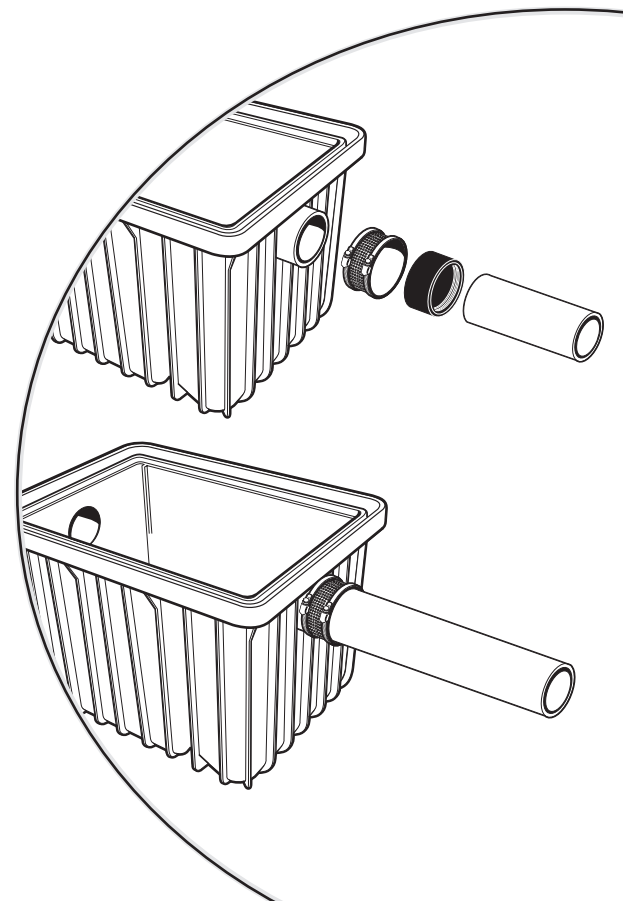
Food Grinder

It is **highly recommended that a solids interceptor be used in conjunction with the grease interceptor**, especially when a food grinder is discharging into the drain line connected to the grease interceptor. The solids interceptor will prevent the grease interceptor from becoming plugged and will reduce the service intervals of the grease interceptor. **If a solids interceptor is not installed, food grinder waste must bypass the grease interceptor, as rapid accumulation of solid matter will greatly reduce the grease interceptor's efficiency, preventing operation in compliance with the rated capacity.**

Piping Connections

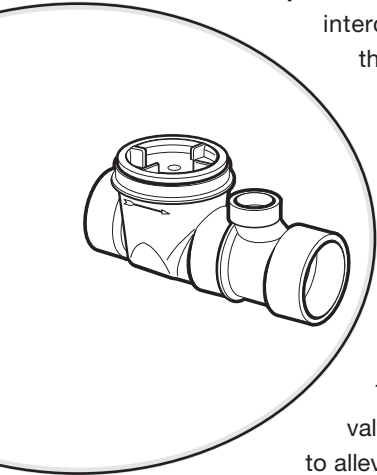
All Endura Grease Interceptors are manufactured with no hub connections. Standard mechanical joint couplings can be used to connect the grease interceptor to a metal or plastic piping system. If the piping system needs to be resized, use appropriate mechanical joint reducers.

Please Note: The Endura Grease Interceptor is made of Polypropylene, which **will not** accept solvent weld cement.



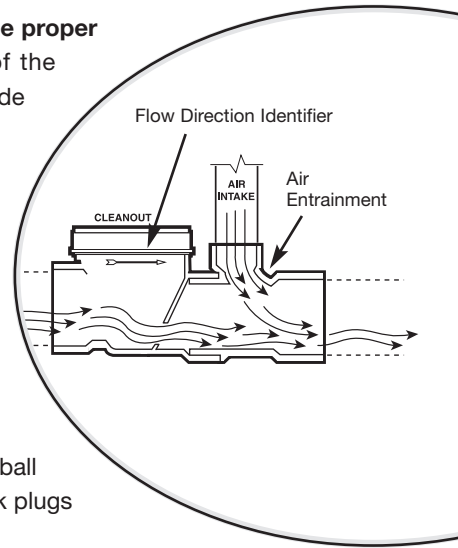
PVC Flow Control Installation

The flow control device furnished with the Endura Grease Interceptor is essential to the proper operation of this unit. The flow control limits the flow to the rated capacity of the interceptor, allowing enough time for grease separation to take place inside the interceptor.



The flow control fitting furnished with the Endura Grease Interceptor must be solvent welded using PVC solvent cement, upstream of the interceptor in the drain line beyond the last connection from the fixture and as close as possible to the underside of the lowest fixture. When the discharge from two or more sinks or fixtures are combined and served by one interceptor, a single flow control fitting should be used.

The installation of a Ball Valve upstream of the clean out is recommended. A ball valve will prevent flooding if the maintenance person forgets to install the sink plugs to alleviate head pressure.



The Endura Grease Interceptor is furnished with an air intake fitting. This fitting is recommended when space is available. Introducing air to the grease effluent promotes grease separation and retention within the interceptor. The air admittance tee should be installed directly after the flow control (refer to the diagram above). The air intake should not be considered a vent. Air admittance is not a requirement of the code but is recommended. If the interceptor is installed very close to the fixtures it is serving, and space limitations inhibit both the Flow Control fitting and Air Admittance Tee from being installed, the Air Admittance Tee is not required. In tight applications such as these, there is an insufficient time interval to recognize the performance enhancement the Air Admittance Tee provides.

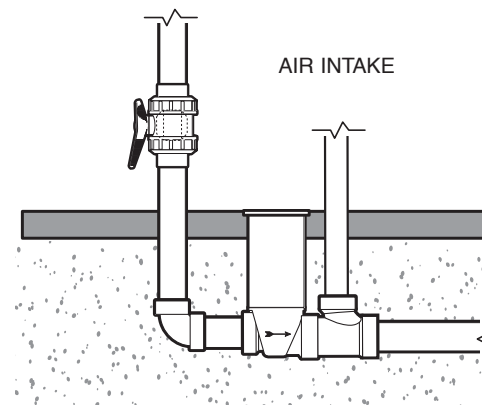
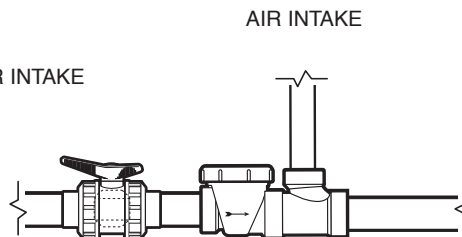
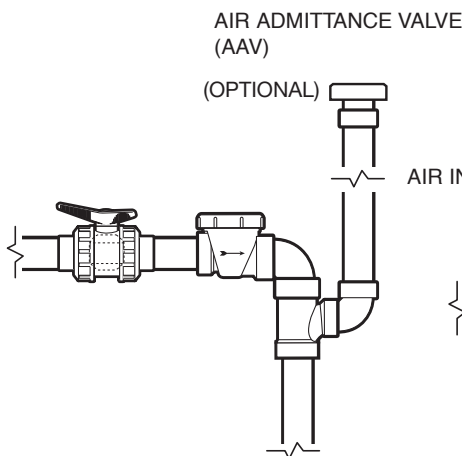
Some local plumbing codes require that grease interceptors have an internal flow control to ensure drain lines do not bypass the grease interceptor. However, if the flow control device is located immediately upstream of an interceptor, it may be considered as forming part of the interceptor. Therefore, officials having jurisdiction may accept such design as meeting the intent of the requirement. If local codes dictate the flow control must be installed directly preceding the grease interceptor inlet, and the fixtures being served are in excess of 8 ft (2.4 m) from the interceptor, we recommend a second flow control being installed as close to the last fixture as possible. Please contact your local representative if you require further clarification.

Note: Some local jurisdictions require that the interceptor service the floor drains. The floor drain must bypass the flow control to ensure the restriction does not flood the drain. Therefore, the flow control should be installed as close to the fixture as possible or directly preceding the floor drain connection.

Tight Enclosures

Typical Installation

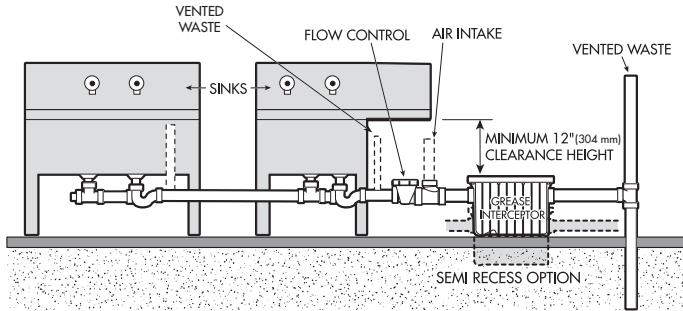
Optional In Floor



Installation Options

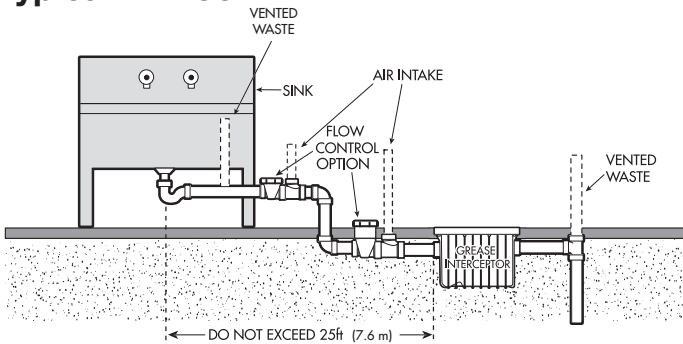
The following illustration represents a typical system design commonly found in food preparation facilities. Adhering to the general installation information presented earlier, select a practical layout to meet the demands of the installation.

Typical On Floor

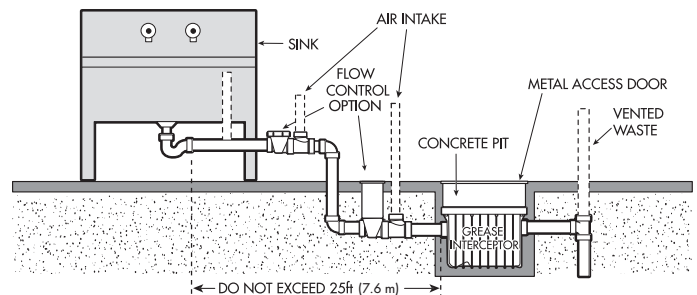


If installed under a sink, make sure there is 12" (304mm) clearance to remove the baffles for cleaning and maintenance. If this is not practical, Semi Recessing the tank is a viable alternative.

Typical In Floor

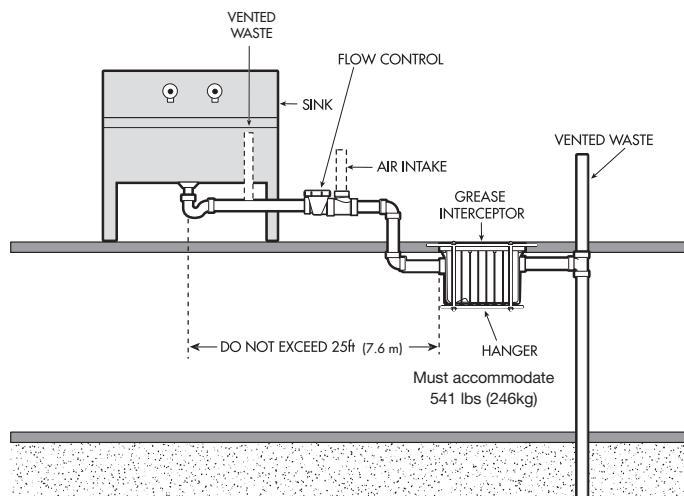
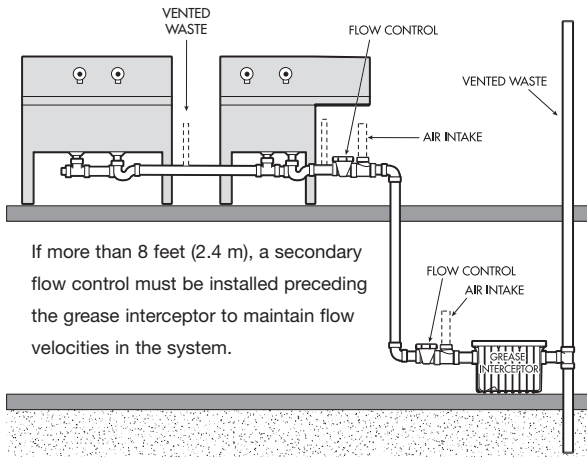


In Floor - Fork Lift, Pump Truck Traffic Area



If installing in a new floor, the interceptor, with lid secured, must be filled with water to provide extra weight to ensure the unit does not move when the floor is being poured. If the interceptor is installed within 6 feet of the fixture an extension kit is not required. Fabricating a concrete pit with a metal access cover will be required where pump trucks or fork lifts travel. Identify the interceptor to flooring contractors to ensure the unit does not get tiled over. Taping cardboard to the cover is effective.

Typical Multi-Story - Single Unit



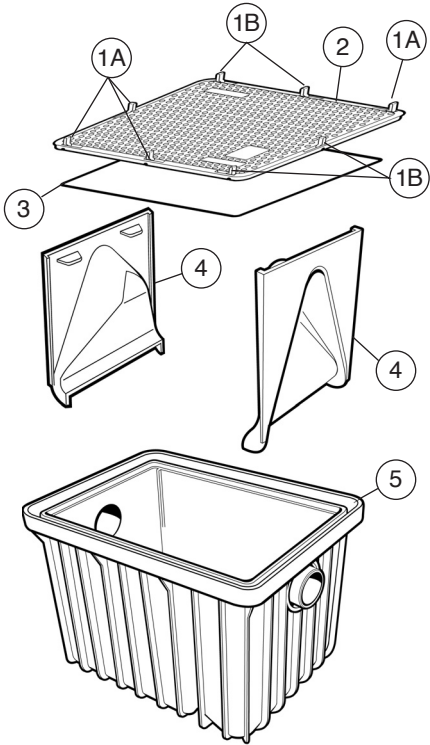
Due to the degree of risk and potential liability for the installer, great care must be taken in designing a hanger system. Canplas recommends consulting an engineer before installing in this manner.

Multiple Fixture Installation

One interceptor serving multiple fixtures is recommended only when the fixtures are located close together. In such installations, each fixture should be individually trapped and back-vented.

Engineering Information

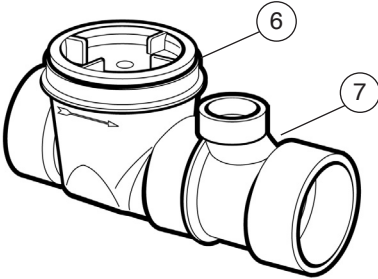
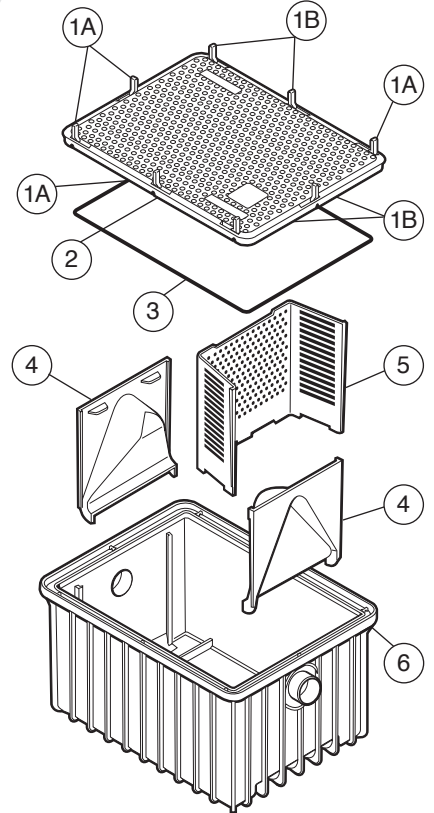
Components for:
3915A03 15GPM (.94 LPS)
3920A03 20GPM (1.26 LPS)
3925A03 25 GPM (1.6 LPS)



1. A) and B) latches 3920A-9
2. Nylon reinforced polypropylene cover (Part #3920A-2)
3. Neoprene Rubber gasket (Part #3920A-5)
4. Removable polypropylene inlet baffles (Part #3920A03-3)
5. One-piece tank (Part #3920A03-1)

Components for:
3935A03 35GPM (2.2 LPS) 3" (76mm) connection
3935A04 35GPM (2.2 LPS) 4" (110 mm) connection
3950A03 50 GPM (3.2 LPS) 3" (76 mm) connection
3950A04 50 GPM (3.2 LPS) 4" (76 mm) connection

1. a Latches (left) 3935A-6LH2
b Latches (right) 3935A-6RH2
2. Nylon reinforced polypropylene cover (Part #3935A-2)
3. Neoprene Rubber gasket (Part #3935A-5)
4. Removable polypropylene baffles 35 GPM (Part #3920A03-3)
5. Removable polypropylene Diffuser Baffle (Part #3935A03-4)
6. One-piece tank (Part #3935A03-1 3" (76 mm) connection)
(Part #3935A110-1 4" (110mm) connection)
(Part #3950A03-1 3" (76 mm) connection)
(Part #3950A110-1 4" (110mm) connection)
7. 110mm to 4"DWV Mechanical coupling (Part #3935A-13, not shown)



PVC Flow Control Assembly with Air Intake Tee

- | | |
|--|---------------|
| 6. Flow Control Assembly with Air Intake Tee | |
| 2" 15 GPM (.94 LPS) | Part #3922115 |
| 2" 20 GPM (1.26 LPS) | Part #3922120 |
| 3" 25 GPM (1.6 LPS) | Part #3933125 |
| 3" 35 GPM (2.2 LPS) | Part #3933135 |
| 3" 50 GPM (3.24 LPS) | Part #3933150 |
| 4" 35 GPM (2.2 LPS) | Part #3934135 |
| 4" 50 GPM (3.2LPS) | Part #3934150 |
| 7. 3" Air intake tee | Part #39331 |
| 4" Air intake tee | Part #202134 |

Accessories

- 2" TUBV valve (Part #731181-020)
- 3" Access sleeve (Part #223303W)
- 3" MIP valve (Part #731015-030)
- 4" Access sleeve (Part #223304W)
- 15/20/25 GPM (.94/1.26/1.6 LPS) Replacement Latch Kit (Part # 3920A-9RPL)
- 35/50 GPM (2.2/3.2 LPS) Replacement Latch Kit (Part #3935A-6RPL)
- 15/20/25 GPM (.94/1.26/1.6 LPS) Recess Extension Kit (Part# 3920AX6)
- 35/50 GPM (2.2/3.2 LPS) Recess Extension Kit (Part# 3935AX6)
- 15/20/25 GPM (.94/1.26/1.6 LPS) Replacement Lid Assembly Kit (Part# 3920A-2ARPL)
- 35/50 GPM (2.2/3.2 LPS) Replacement Lid Assembly Kit (Part# 3935A-2ARPL)

Approvals

- Los Angeles County, CA
- Ontario Ministry of Municipal Affairs & Housing
- Commonwealth of Massachusetts
- City of New Orleans, LA
- Dallas/Fort Worth, Tx
- City of Philadelphia, PA

Certifications & Standards

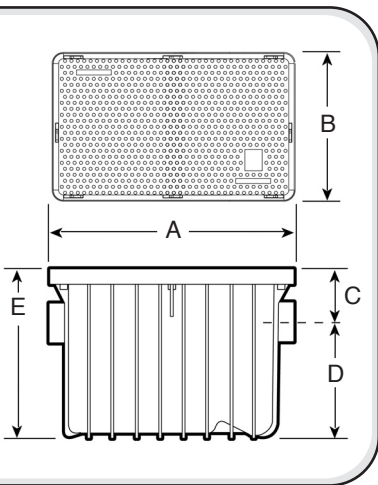
- PDI-G101
- UPC
- ANSI/ASME A112.14.4

Certificates available upon request.

Technical Specifications - Sizing

US Gallons Per Minute (GPM)	15	20	25	35	50
Pounds	30	40	50	70	100
Litres Per Second (LPS)	0.94	1.26	1.6	2.2	3.2
Kilograms	13.6	18.1	22.7	31.8	45.4
Part Number	3915A02	3920A02	3925A03	3935A (**)	3950A (**)
Grease Capacity lbs (Kg) actual	65 (29.5)	70 (31.8)	74 (33.6)	115 (52.2)	122 (55.3)
Operating Temperature Capabilities	220°F (104°C)	220°F (104°C)	220°F (104°C)	220°F (104°C)	220°F (104°C)
Surface Load Capacity	440 lbs (200 kgs)	440 lbs (200 kgs)	440 lbs (200 kgs)	440 lbs (200 kgs)	440 lbs (200 kgs)
Unit Weight Capacity (Empty)	23 lbs (10.4 kgs)	23 lbs (10.4 kgs)	23 lbs (10.4 kgs)	45 lbs (20.4 kgs)	60 lbs (27.2 kgs)
Liquid Capacity	21.6 gal (81.8L)	21.6 gal (81.8L)	21.6 gal (81.8L)	39.4 gal (149.1L)	52.0 gal (197 L)
Connection size (mechanical) (110 mm available on request)	2"	2"	3"	**3" (03) **4" (04)	**3" (03) **4" (04)

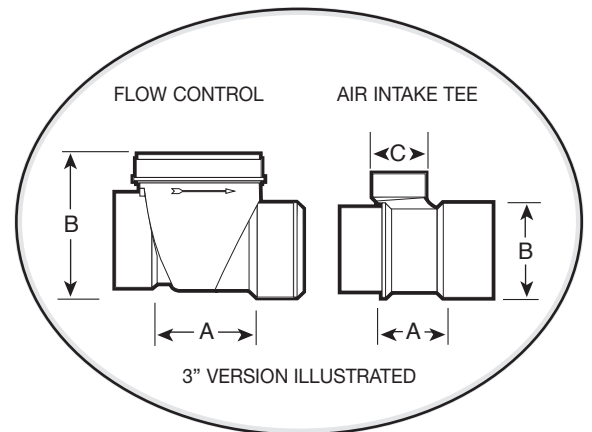
Dimensional-Tank



	GPM/lbs 15/30	20/40	25/50	35/70	50/100
A	23.6" (600mm)	23.6" (600mm)	23.6" (600mm)	31.0" (787mm)	31.0" (787mm)
B	17.5" (444mm)	17.5" (444mm)	17.5" (444mm)	23.5" (597mm)	23.5" (597mm)
C	3.5" (89mm)	3.5" (89mm)	4.1" (104mm)	5.0" (127mm)	5.0" (127mm)
D	12.8" (325mm)	12.8" (325mm)	12.2" (310mm)	12.5" (318mm)	18.5" (469.9 mm)
E	16.3" (414mm)	16.3" (414mm)	16.3" (414mm)	17.5" (444mm)	23.5" (596.9 mm)

Dimensional-Flow Control Assembly - PVC DWV

Connection Iron Pipe Size (Solvent weld)	Flow Control			Air Intake Tee		
	2" h x h	3" h x h	4" h x h	2" spg x h	3" spg x h	4" spg x h
A	3.0" (76.2mm)	4.23" (107.4mm)	6.13" (155.7mm)	2.91" (73.9mm)	2.67" (67.8mm)	3.19" (81mm)
B	3.84" (97.5mm)	5.93" (151mm)	6.84" (173.7mm)	2.71" (68.8 mm)	4.01" (101.9mm)	5.04" (128mm)
C	-	-	-	2.24" (56mm)	2.27" (57.7mm)	2.72" (69.1mm)



To ensure your customer receives the best grease interceptor available, it is advised that you write your specification such as this:

Contractor shall install an Endura® Grease Interceptor
Part # _____ (fill in)

A flow control with a rate of _____ gpm will be installed in accordance to manufacturer's instructions. The unit

shall be comprised of engineered thermoplastics to withstand temperatures of 220°F (104°C) and a lid with the capability of supporting 440 lbs. (200 Kgs) The unit will be supported by a 10 year manufacturer's extended warranty.

Contractor shall provide mechanical connectors to connect the grease interceptor. The grease interceptor shall be certified by PDI G101 standard.

Sizing

For Grease Interceptor sizing, please reference the Sizing Guide or the Plumbing Drainage Institute Standard PDI-G 101. Without a properly sized flow control, the flow through the interceptor may exceed the rating of the unit, causing lower efficiencies and allowing grease to pass through the interceptor into the downstream piping. Be careful that you do not confuse liquid capacity and flow capacity. Liquid capacity is rated litres or gallons while flow capacity is rated in gpm (gallons per minute) or lpm (litres per minute).

If sizing indicates that a larger Grease Interceptor is required, you maybe able to compromise to a smaller unit by adopting to a 2 minute drain down time in your sizing calculation. Although the smaller unit will be less expensive, the grease capacity of a smaller unit will dictate the cleaning frequency required.

Mop Sink Sizing Guide

Size	LPS	US/GPM
2"	84	22
3"	142	37.5
4"	170	45

Floor Drains & Floor Sinks

Take the volume of water produced by the number of hose bibs (ie 1.5-2.0 gpm per 3/4" faucet)

Table A - Procedure for Sizing Grease Interceptors

STEP	FORMULA	EXAMPLE
1	<i>Determine cubic content of fixture by multiplying length x width x depth</i>	A sink 24" long by 20" wide by 12" deep. Cubic content: 24 x 20 x 12 = 5,760 cubic inches (61.0 x 50.8 x 30.48 cm ³)
2	<i>Determine capacity in gallons.</i> 1 gallon = 231 cubic inches	Contents in gallons: 5,760 / 231 = 24.9 gallons (94,451.42 / 1,000 = 94.45 litres)
3	<i>Determine actual drainage load.</i> The fixture is normally filled to approximately 75% of capacity with water as the items being washed displace about 25% of the total fixture content. Actual drainage load = 75% of fixture capacity	Actual drainage load: .75 x 24.9 = 18.7 gallons (0.75 x 94.45 = 70.84 litres)
4	<i>Determine flow rate and drainage period.</i> In general, good practice dictates a one minute drainage period; however, where conditions permit, a two minute drainage period is acceptable. Drainage period is defined as the actual time required to completely drain the fixture. Flow rate = $\frac{\text{Actual Drainage Load}}{\text{Drainage Period}}$	Calculate flow rate for one minute drainage period: 18.7 / 1 = 18.7 g.p.m. flow rate (70.84 / 1 min. = 70.84 l.p.m.) Calculate flow rate for two minute drainage period: 18.7 / 2 = 9.4 g.p.m. flow rate (70.84 / 2 min. = 35.42 l.p.m.)
5	<i>Select Interceptor.</i> From Table B select the interceptor with a flow rating at least equal to the calculated flow rate. When the calculated flow rate falls between two sizes, select the larger of the two interceptors.	<i>For a one minute drainage period:</i> 18.7 g.p.m. (70.84 l.p.m.) flow rate = 20 g.p.m. G.I. <i>For a two minute drainage period:</i> 9.4 g.p.m. (35.42 l.p.m.) flow rate = 10 g.p.m. G.I.

Table B - Procedure for Sizing Grease Interceptors

PDI Size Symbol	4	7	10	15	20	25	35	50
Flow Rate US Gallons per Minute (GPM)	4	7	10	15	20	25	35	50
Flow Rate Liters per Second (LPS)	.25	.44	.63	.95	1.26	1.58	2.20	3.16
Grease Capacity Pounds (Lbs)	8	14	20	30	40	50	70	100
Grease Capacity Kilograms (Kgs)	3.63	6.35	9.07	13.61	18.14	22.68	31.75	45.36

Sampling Access

Some municipalities require a sampling port to monitor effluent quality. If the unit is on the floor, or semi-recessed into the floor, a cleanout tee can be installed downstream of the Grease Interceptor. If the unit is installed in the floor, a backwater with its flapper removed, makes an effective collection port.

Venting

Grease Interceptors must have a vented waste, sized in accordance with local code requirements for venting interceptors to retain a water seal and prevent siphoning. Most codes dictate that two vents be installed, one upstream and one downstream of the grease interceptor. The upstream vent must not be placed between the air intake and the grease interceptor.

Warranty

The Endura Grease Interceptor is inspected for manufacturing defects, however, it is not always possible to detect hidden defects. The Endura Grease Interceptor is warranted only to the extent that the manufacturer will replace without charge products proven to have manufacturing defects within twelve (12) months of the date of delivery thereof and provided Seller has been given an opportunity to inspect the product alleged to be defective and the installation and use thereof. NO WARRANTY IS INCLUDED AGAINST ANY EXPENSE FOR REMOVAL, REINSTALLATION OR OTHER CONSEQUENTIAL DAMAGES ARISING FROM ANY DEFECT. THE WARRANTIES SET OUT ABOVE ARE THE ONLY WARRANTIES MADE BY SELLER AND ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

ENDURA® Grease Interceptor 10 Year Extended Warranty

The Endura® Grease Interceptor is warranted for ten (10) years from the date of installation based on the receipt of a completed warranty card (included with the grease interceptor). Said warranty card must be returned to the manufacturer within thirty (30) days of the installation date, in order to be eligible for this extended warranty.

The ten (10) year warranty covers defects resulting from faulty manufacture of materials as well as perforation of the grease interceptor based on normal operating conditions. The manufacturer does not provide a warranty for perforation resulting from mechanical or chemical causes of abnormal use.

The Endura® Grease Interceptor is warranted only to the extent that the manufacturer will replace, without charge, products proven to have manufacturing defects or perforation (other than perforation resulting from mechanical or chemical causes) within the specified ten (10) year warranty period and provided the manufacturer has been given an opportunity to inspect the product alleged to be defective and the installation and use thereof.

No warranty is provided for any expense for removal, reinstallation or other consequential damages arising from and defect or perforation. The warranties set out above are the only warranties made by the manufacturer and are expressly in lieu of all other warranties, expressed or implied, including the warranties of merchantability and fitness for a particular purpose.

Please Note: This warranty is offered by Canplas Industries Ltd. No claim should be placed upon the Installer or Service Company if properly installed and serviced.

Endura® Grease Interceptor
FAX TO: 705-726-8991
TEN (10) Year Extended Warranty Registration Card

Thank you for your purchase of a Endura® Grease Interceptor.
 Please complete and return this registration card via fax or return by mail in the envelope supplied.
FAILURE TO REGISTER THIS INSTALLATION WILL VOID THE EXTENDED WARRANTY.

Contractor/Installer (Print)
 Name: _____
 Co. Name: _____
 Address: _____

 Tel: _____ Fax: _____

 Signature of Installer

Client/Installation Location
 Name: _____
 Address: _____

 Tel: _____ Fax: _____

Purchased From
 Name: _____
 Address: _____

 Tel: _____ Fax: _____

Size of Grease Interceptor installed?
 15 GPM (.94 LPS) 20 GPM (1.26 LPS) 25 GPM (1.6 LPS)
 35 GPM (2.2 LPS) 50 GPM (3.2 LPS)

Is this a new installation or replacement?
 New Replacement

Where was it installed?
 On Floor In Floor

How did you hear about the product?
 Supplier Trade Show Trade Magazine Specified Referral

Was this the first Canplas Endura® Grease Interceptor you have installed?
 Yes No

Was it easy to install?
 Yes No

Additional Comments: _____

IMPORTANT NOTE:

This warranty card **MUST BE** filled out and returned to ensure the ten (10) year warranty is valid

Optional Return by **Mail** to: Endura Grease Interceptor, Box 1800, Barrie, ON L4M 4V3

For more information or technical assistance contact:

Tel: 1-800-461-1771
 Fax: (705) 726-2186

Thank you to The Plumbing & Drainage Institute for their assistance with this publication.

Company policy is one of continual development and any specification contained in this literature may change without notice.
 Actual products may not be exactly as shown.