ENGINEERING COMMUNIQUÉ

JAY R. SMITH MFG. CO.® ♦ FEBRUARY, 2013 ♦ VOLUME 3- ISSUE 1

From:
THE SMITH ENGINEERING GROUP
PRODUCT ALERT: SQ-8-4618

We recently received multiple requests for an inspection chamber on the outlet side of the grease interceptor. This inspection chamber is required to be separate from the actual interceptor. It will be used as an access to the grease interceptor's discharge for sampling the effluent. It is intended to be installed immediately next to the grease interceptor. The roughing-in dimensions match the grease interceptor for ease of connecting the two independent units.

It is fabricated steel with a gray Duco coating, solid secured diamond plate cover and threaded inlet/outlet. This unit is also available in stainless steel. An extension is an option along with a heavy duty cover in the event it is installed flush with the floor.

Please refer to the attached submittal drawing.

DENSITY OF COOKING OIL:

Cooking oil includes the well-known olive, sunflower, and canola oils and the not so well know coconut, soy, and palm oils. Oil is removed from olives by pressing. The oil obtained from the first pressing is called virgin oil and is considered to be the highest quality salad and cooking oil. A second pressing of the olives produces oil of lesser quality that must be refined. Sunflower oil, because of its high protein content, is considered as semidrying oil and can be used in making paints or other industrial uses but it is much more popular as a food and is considered by some as desirable as olive oil. It is also used for cooking, frying and in the manufacture of margarine and shortening. Canola oil, which was previously called rapeseed oil, differs from other vegetable oils because it contains significant quantities of eicosenoic and erucic fatty acids. It is used as both an edible oil and as a lubricant for metal surfaces because of high viscosity of rapeseed oil.

Coconut oil comes from a part of the coconut called the copra, which is mostly made up of highly saturated oil. The oil is extracted from the copra by crushing and is used in baking and a variety of prepared foods. Of all the edible oils, coconut has the most nonedible uses. It is used in cosmetics, toiletries, and soap production.

The following question was asked recently: What is the difference between yellow waste grease and brown waste grease?

Yellow grease is often referred to as fryer grease/oil or clean grease. It is the used cooking oil from fryers. This waste oil is saved by manually dumping or piping it into a container/grease bin where it is stored, removed and transported to a recycling facility. It can be used in several byproducts such as feedstock. This waste never enters the grease interceptor.

Brown grease is a mixture of all FOG wastes and may contain other chemicals and residues found on kitchen floors. Brown grease is considered contaminated and unsuitable for reuse in many byproducts. One useful byproduct for brown grease is the conversion to biodiesel.

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Palm oil is similar to coconut. Because of it is highly saturated, it is used to make shortening and frying oil. Soy oil, obtained by solvent extraction, is the dominant vegetable oil worldwide.
Most of the production is consumed as salad oil, cooking oil, and margarine. It is also used in a variety of prepared foods such as frozen desserts and coffee whiteners. Like sunflower oil, it is considered a semidrying oil and has a variety of industrial uses.

The density of the oils vary with each type and temperature. The range is from 0.91 to 0.93 g/m^3 between the temperatures of 59°F and 77°F. Comparing to water, whose density is 1.00 g/ml, cooking oil is less dense.
Therefore, the reason oils float on the surface of the water.

The term 'Grease and Grease Interceptors' have been industry terms for over sixty years. Technically, the more recent acronym/term 'FOG' is correct as it represents waste containing kitchen fats, oils and greases, all of which are intercepted in the grease interceptor.

Other material whose density is greater than water will sink requiring the need for a solids interceptor.

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MEMBER OF:

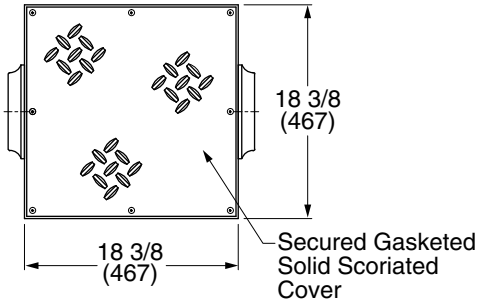
LOCATION

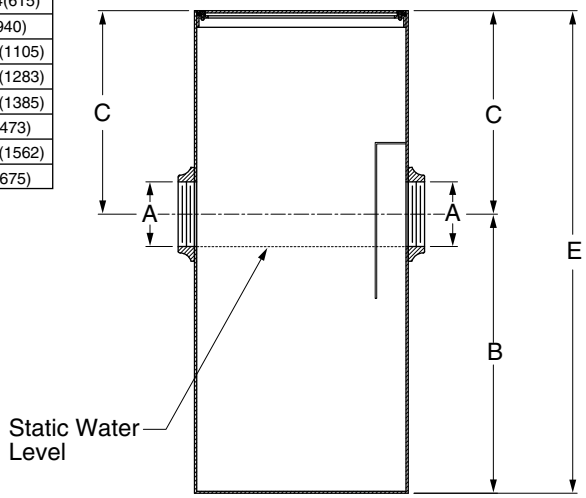
INSPECTION CHAMBER

INSPECTION CHAMBER FOR GREASE INTERCEPTORS

FUNCTION: Used as an access to the discharge from grease interceptors for the purpose of sampling the discharge water. It is installed next to the outlet of the grease interceptor. The roughing-in dimensions match the grease interceptor roughing-in dimensions for ease of connecting the two independent units.

	DIMENSIONS				
	FIGURE NUMBER	A (PIPE SIZE)	B	C	E
	SQ-8-4618-04	02(50)	7 3/4(195)	3 1/4(83)	11(280)
	SQ-8-4618-07	02(50)	8 1/2(215)	3 1/2(89)	12(305)
	SQ-8-4618-10	02(50)	9 1/2(240)	3 3/4(95)	13 1/4(335)
	SQ-8-4618-15	02(50)	12(305)	3 1/2(89)	15 1/2(395)
	SQ-8-4618-20	03(75)	13(330)	4(100)	17(430)
	SQ-8-4618-25	03(75)	15 1/4(390)	4 1/2(115)	19 3/4(502)
	SQ-8-4618-35	03(75)	16(405)	5(125)	21(535)
	SQ-8-4618-50	03(75)	17 1/2(445)	6 3/4(170)	24 1/4(615)
	SQ-8-4618-75	04(100)	21 1/2(545)	15 1/2(395)	37(940)
	SQ-8-4618-100	04(100)	27(635)	16 1/2(420)	43 1/2(1105)
	SQ-8-4618-150	05(125)	33(840)	17 1/2(445)	50 1/2(1283)
	SQ-8-4618-200	05(125)	37(940)	17 1/2(445)	54 1/2(1385)
	SQ-8-4618-250	05(125)	40(1015)	18(455))	58(1473)
	SQ-8-4618-350	05(125)	43 1/2(1105)	18(455)	61 1/2(1562)
	SQ-8-4618-500	06(150)	48(1220)	18(455)	66(1675)





REGULARLY FURNISHED:
Duco Coated Gray Fabricated Steel Inspection Chamber with Solid Gasketed Secured Diamond Plate Cover and Threaded Inlet and Outlet.

VARIATIONS:
- ☐ No Hub Adaptors -Y
- ☐ Vandal Proof -U
- ☐ Heavy Duty Cover -HD
- ☐ Extension -E

OPTIONAL MATERIALS:
- ☐ All Type 304 Stainless Steel -SS304
- ☐ All Type 316 Stainless Steel -SS316

NOTE: Dimensions shown in parentheses are in millimeters.

REV.	DATE	DESCRIPTION	BY	CKD. BY

WEIGHT POUNDS

VOLUME CUBIC FEET

FIGURE NUMBER
SQ-8-4618

FIGURE NUMBER: SQ-8-4618
DRAWN BY: TBW
CHECKED BY: JM
APPROVED BY: SJM
DATE: 9-24-12
SCALE: NONE
SIZE: A
DRAWING NUMBER: SQ-8-4618