



# **FILTER FREQUENCY**

Interactive Worksheet





# HOW OFTEN SHOULD YOU FILTER?

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**Filtering your vats** is the single most **important** thing you can do to **extend the life of your frying oil**. Filtering reconditions oil by removing impurities that not only affect the quality of food but cause oil to breakdown even faster. Frequent filtering with the right filter media can cut your oil discards **in half**, saving operators **thousands per year** in direct oil costs.

**How often should you filter?** This work sheet can help you figure that out. A lot depends on what you are frying, how much of it you are frying, and how old your oil is. We've listed eight major factors associated with deep frying that cause the most damage to oil. Then we applied these factors in the examples below to show how two popular deep fried menu items can be very different in their impact on oil and how often it needs to be filtered.

**Our interactive form will help you calculate the ideal filter interval for your own items.**



# 8 FILTRATION FREQUENCY FACTORS

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## Moisture

Water does a lot of damage to oil through a chemical reaction called hydrolysis. All foods have moisture, and quite a bit of it escapes into the oil as it cooks. Foods vary in moisture content, and fresh foods contain more water than frozen foods.

## Breading Falloff

Crumbs and fall off continue to cook with each cycle, releasing carbon that accelerates the chemical reactions and polymer formation that breaks down oil. Freezer to fryer items have little fall off. Freshly breaded items have the most.

## Daily Volume

Obviously, if you are frying all day your oil is working hard and needs to be filtered more often than when it is not in use. Oil continues to degrade even in idle fryers, and frequent heating and cooling accelerates this process.

## Cook Temp

The higher the cooking temperature of oil, the faster it degrades. Cooking temperatures for deep frying are typically between 320 F and 350 F.

## Seasoning

Pre-seasoned fresh or frozen items will degrade oil faster than unseasoned items. Salts and other seasonings on the surface of fried items react quickly with hot oil, causing oxidization and hydrolysis.

## Age of Oil

As frying oil degrades, it absorbs contaminants more easily and should be filtered more often toward the end of its service.

## Cook Time

Longer cook times are usually associated with larger portions or larger loads that require more time for oil temperature to recover. In either case, more moisture, fat and seasonings escape from food into the oil as contaminants.

## Load Size

A larger volume of product causes a greater drop in oil temperature and increases the proportion of oil-damaging factors to good oil. Longer cook and recovery times mean more heat is applied to the same amount of oil, causing faster breakdown. Smaller loads simply have less of an impact.



# FILTER FREQUENCY EXAMPLES

**MENU ITEM** Fresh Breaded bone-in crispy chicken 8-pc

FACTOR	High = 0	Moderate = 1	Low = 2
Moisture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Breading falloff	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Daily volume	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cook temp	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Seasoning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age of oil	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cook time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Load size	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>TOTAL</b>		<b>3</b>	<b>2</b>

The total number of light oil drops corresponds to the ideal number of cook cycles before the next express filter.

For standard vats, multiply total number times 3.

<b>FILTER INTERVAL</b>	<b>Low oil capacity vat</b>	<b>5</b>
	<b>x 3 for standard vat</b>	<b>15</b>

**CLICK HERE**

TO CALCULATE YOUR OWN  
FILTER FREQUENCY



# FILTER FREQUENCY EXAMPLES

## MENU ITEM Frozen Frech Fries

FACTOR	High = 0	Moderate = 1	Low = 2
Moisture	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Breading falloff	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Daily volume	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cook temp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seasoning	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Age of oil	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cook time	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Load size	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>TOTAL</b>		<b>1</b>	<b>15</b>

The total number of light oil drops corresponds to the ideal number of cook cycles before the next express filter.

For standard vats, multiply total number times 3.

<b>FILTER INTERVAL</b>	<b>Low oil capacity vat</b>	<b>16</b>
	<b>x 3 for standard vat</b>	<b>48</b>

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TO CALCULATE YOUR OWN  
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## Establish a filter interval range for each menu item

Use this work sheet as a guideline to determine how often you should filter for each deep-fried item on your menu. Adjusting some Filtration Frequency Factors, like load size, volume and oil aging, will give you a range of cook cycle intervals for each item to help in programming your fryers and training crew.

## Test frying oil as it ages

Changes in any Filtration Frequency Factor can either lengthen or shorten your typical oil disposal interval. As oil breaks down, it gradually becomes darker in color even after filtering. This is a natural part of the aging process, and the easiest way to judge oil quality. To maintain food quality, periodically test the oil in your vats to be sure you are not throwing it out too soon or too late.

## The right filter media can extend oil life

Ask your Henny Penny distributor about Prime Filter pads and Prime Filter powder. [Prime Filter products](#) are designed to remove both soluble and insoluble contaminants from frying oil, and have been show to dramatically increase oil life at optimum quality.

## Save big by making oil last longer

Be sure to read [The Ultimate Guide to Extending Oil Life](#) for an in-depth understanding of different oils, why they break down, and what you can do about it. There is a lot of money to be saved by learning how to treat your oil right, and two ways to find out how much: First, check out our [oil cost savings template](#) that lets you calculate oil savings based on your input. Then, schedule a [no-obligation Oil Savings Audit](#) with a Henny Penny distributor who will review your frying program and help you create the best version of your deep-fried menu while making your oil last longer.

