

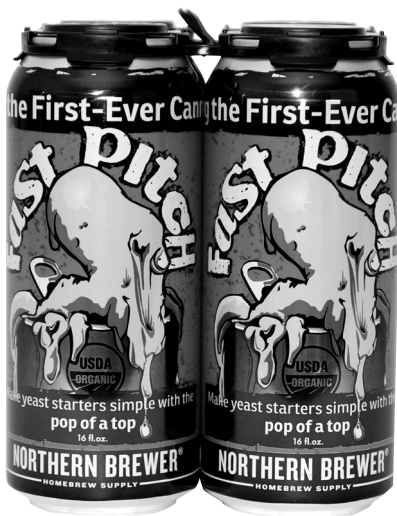
**FERMENTER'S  
★ FAVORITES ★**

# Fast Pitch™

## Yeast Starter Kit

Yeast starters are the #1 way to radically improve every aspect of your homebrew. Higher ABV with complete fermentations. Eliminated off-flavors through strong, healthy yeast. Reassurance that your yeast is viable before you pitch it. A yeast starter is the fast track to commercial-quality craft brew, and Fast Pitch™ helps you make better beer with less effort. A yeast starter with Fast Pitch™ is as easy as making kool-aid. Add it to water, pitch yeast. Make better beer. It's that easy.

### KIT INCLUDES



Fast Pitch™  
Canned Wort (4-Pack)



1000mL or 2000mL Flask  
Foam Stopper

### MAKING A YEAST STARTER

Use one can of Fast Pitch™ for each liter of starter wort. If you're making a 1000 mL starter, use 1 can of Fast Pitch™. If you're making a 2000mL starter, use 2 cans of Fast Pitch™.

Size of Starter	Add Fast Pitch™	Add Water
1L	1 can	16 oz.
2L	2 cans	32 oz.

1. Sanitize everything. Sanitize the flask, stopper, yeast packet, a pair of scissors and the top of each can of Fast Pitch™.
2. Carefully pour the wort concentrate from the can into the flask. Fill the can with water and empty it into the flask, using a 1:1 ratio for dilution—one can of water per can of Fast Pitch™.
3. Cut open the yeast packet with the sanitized scissors and pitch the yeast into the flask. Insert the foam stopper and shake or swirl the flask to aerate the wort.
4. Allow the yeast starter to ferment for at least 12 hours. Usually, a fermenting yeast starter will not exhibit the same indicators of fermentation as a batch of beer (i.e. krausen, bubbling airlock). Instead, look for a cloudy appearance, a "yeasty" or "beery" aroma (instead of sweet and "worty"), and a layer of white sediment on the bottom of the flask.

**NOTE:** It's best to use the starter when it is visibly active or immediately thereafter; if the starter finishes fermenting days before it will be pitched into the main batch, add more wort to get it going again. The starter should be refrigerated if it has finished fermenting but will not be pitched or increased in size soon thereafter.

5. Pitch the starter into your main batch—swirl the flask to pick up the sediment at the bottom and pour it in the fermentor. Alternately, you may wish to decant the spent wort from the flask and add only the thick yeast slurry at the bottom. To decant the spent wort, chill the flask for several hours to cause the yeast cells to settle, then pour most of the wort off the top to discard. Before pitching, swirl the yeast and remaining wort vigorously to dislodge the slurry.

## TIPS AND TRICKS

---

### CHOOSING A STARTER SIZE

A 1000mL starter is appropriate for a 5-gallon batch of ale with up to about 1.080 starting gravity, or a lager of up to about 1.060 starting gravity. A 2000mL starter is appropriate for a 5-gallon batch of ale with over 1.080 starting gravity or a lager up to 1.080.

### BUILDING UP TWICE

To increase pitching rates even more for very strong beers or larger batches, allow the starter to ferment completely. Chill the flask to cause the yeast to settle, then decant the spent wort and add more wort. Remember to follow strict sanitation procedures! Stepping up a 1000mL starter with an equal amount of wort will produce an even higher cell count than a plain 2000mL starter.

### USING A STIR PLATE

Putting your yeast starter on a stir plate will greatly increase the rate of growth and the size of the yeast culture. A .5L starter on a stir plate will produce the same cell count as a 2L non-stirred culture. A starter on a stir plate will usually be ready to pitch in about 12 hours instead of 24.

## WHY USE A STARTER?

---

The homebrewer has a few specific goals when making a yeast starter. Here are the key reasons to make a yeast starter for better beer:

**Increase Cell Count.** Having a high pitching rate makes better beer.

**Increase Cell Viability.** Healthy yeast cells ferment quickly, produce minimal fermentation by-products, attenuate fully (ferment to a proper final gravity), can ferment high-gravity worts, and have more tolerance for high concentrations of alcohol.

**Reach Full Attenuation.** An insufficient amount of cells may ferment sluggishly or incompletely, especially in a high-gravity or lager wort.

**Shorten Lag and Growth / Respiration Phases.** Reducing the duration of the lag and growth phases minimizes the opportunity for wort contamination and the formation of fermentation byproducts.

**Improve Beer Flavors and Aromas.** Under-pitching creates stress—too much work for too few cells. Stressed cells are more likely to create off-flavors or aromas in the finished beer.