Converting Starter Hydrations

How the StarterConverter works

This note presumes you understand baker's percentages and hydration. In brief, by definition, the ingredient percentage (IP) is the weight of the ingredient divided by the total flour weight (TFW).

(1) IP = IW ÷ TFW

or TFW = IW / IP

From which it follows that the total weight of the ingredients, divided by the total baker's percentage of those ingredients is the weight of the flour.

(2) TW / TP = TFW

Where TW is the sum of the weights of the ingredients and TP is the sum of the baker's percentages of the ingredients

Thus, a sample of 194 grams of 166% hydration starter can be separated into its ingredient weights as follows:

166% Hydration Starter Recipe	**Bakers' Percentage**	**Weight (grams)**
Warm water	166	121
Flour, unbleached bread	100	73
Total	**266**	**194**

Since flour is the base ingredient for all of the baker's ratios, we keep it the same. For example, if we wish to use a starter at 100%, we will likely need to add the starter plus some water. Once we know the TFW of the proposed starter, we can quickly find the weight of the water by noting that the hydration of the starter is the IP of the water. Thus

IW_{water} = Hydration * TFW

NOTE: You will need to express the Hydration as a decimal or divide the result by 100 when you are done.)

In the example below, we knew the weight of the flour was 73, and the hydration was 100% so

$IW_{wate\ r}$= 100 * 73 / 100 or just 73

100% Hydration Starter Recipe	**Bakers' Percentage**	**Weight (grams)**
Warm water	100	73
Flour, unbleached bread	100	73
Total	**200**	**146**

So to use this starter in a recipe calling for the 166% starter you would use 146 grams of 100% starter and add 48 (121 – 73) grams of liquid.