

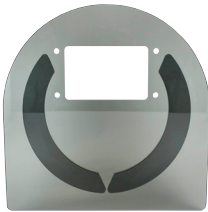
# CAPTAIN CRUSH<sup>®</sup>

The first industrial-grade grain mill purpose-built for homebrewing. Quick assembly. Corrosion resistant. Unparalleled perfection and customization in gristing. Built for convenience. Built to last a lifetime.

## INVENTORY



HOPPER



BASE



ROLLER HOUSING



BOLTS (8)



LOCK WASHERS(8)



FLAT WASHERS(8)



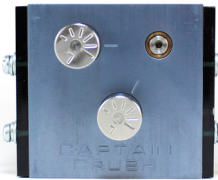
3MM ALLEN WRENCH

## ANATOMY OF YOUR MILL

ADDITIONAL EQUIPMENT REQUIRED: Philips or Flathead screwdriver, Drill with 3/8" Chuck or larger

### ROLLER HOUSING

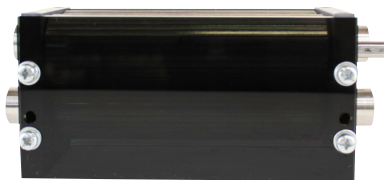
The Captain Crush<sup>®</sup> roller housing holds the three rollers and is the center of milling. It is the hub for controlling your crush, powering the mill, and troubleshooting feeding or binding.



Left Endplate



Right Endplate



Acrylic Sideplate

### ROLLERS

The drive roller and top idler roller open the husk of grain, while the bottom idler roller crushes the starchy endosperm.

The drive roller has a drive shaft attached for powering the mill.

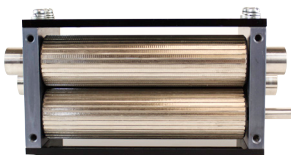
#### Drive Roller



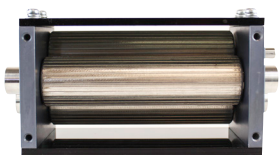
#### Idler Roller



#### Top View



#### Bottom View



### GAP ADJUSTMENT KNOBS

Use these knobs, located on both sides of the mill, to adjust the coarseness of the crush. The gaps have an adjustable range of .065". The gap spacing can be set from .025" to .090"

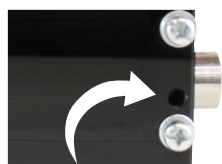
Top knobs alter the first gap, bottom knobs alter the second gap. **Parallel knobs must have equal gap settings.**



Knobs use a spring and ball plunger to secure the gap setting. When you turn a knob, it should click into each hash mark.



Hash marks indicate the width of the gap. A longer hash mark = wider gap. Both top knobs must be set to the same hash mark, and both bottom knobs must be set to the same hash mark.



Each knob has a port for adjusting spring tension. Ports are located on acrylic side plates, at the same height as the knob they adjust.

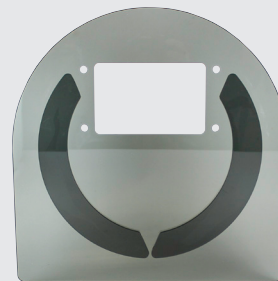


### DRIVE SHAFT

This post has 3 flats for attaching a 3/8" drill & powering the drive roller.

### BASE

Translucent acrylic gives you the ability to watch your bucket fill up with grain. Attaches to the bottom of the roller housing.



#### BUCKET RIM

Located on the underside of the mill base, this rim fits snugly inside the diameter of a 5 or 6.5 Gallon bucket. Rest your mill atop a bucket and crush grain directly into the bucket.



### HOPPER

Holds 11 lbs. of grain. Translucent acrylic gives you the ability to see your grain go through the rollers.

Attaches to the roller housing with 4 bolts.

### SMALL PARTS GUIDE



#### BOLT

Secures washers to acrylic.

#### LOCK WASHER

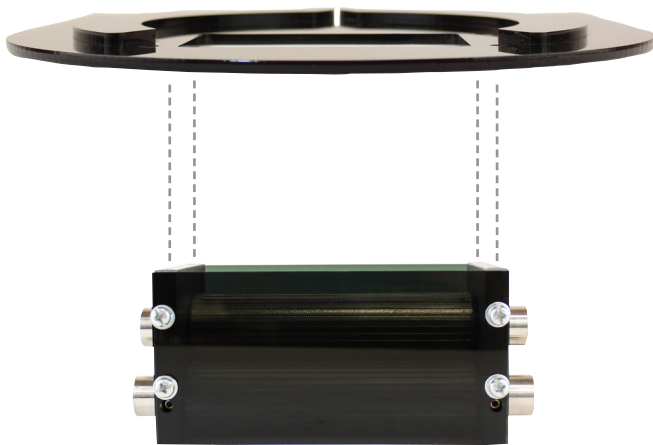
Adds compression between bolt head & flat washer.

#### FLAT WASHER

Sits flush against acrylic to disperse pressure.

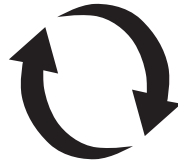
# ASSEMBLY

1



2

FLIP  
ASSEMBLY  
OVER



## ATTACHING THE BASE TO ROLLER HOUSING

1. Set roller housing on flat surface with endplate "Captain Crush®" text upside-down
2. Place the base, bucket-ridge side up, on top of the roller housing, lining up the four holes on the base with the holes on the roller housing.
3. Fasten base to mill. Use one flat washer, lock washer and bolt for each hole. Hand tighten all four bolts first, then secure with a screwdriver until snug. **Do not overtighten.**

## ATTACHING THE HOPPER

1. Place the hopper atop the roller housing, with the logo on the hopper facing the same direction as the flat edge of the base.
2. Fasten hopper to roller housing. Use one flat washer, lock washer and bolt for each hole. Hand tighten all four bolts first, then secure with a screwdriver until snug. **Do not overtighten.**

# TEST & TROUBLESHOOT

## MIND THE GAP

Set your mill to desired gap settings. We recommend starting with the top roller knobs set on the second-longest hash mark, and the bottom roller set on the fourth hash mark. (See right & left endplate in *Anatomy of your Mill*)

Feel free to experiment with different gap settings, but keep the top roller gap wider than the bottom roller gap to facilitate feeding.

## FINE GAP ADJUSTMENT

Knobs should be easy to turn and click when adjusted. If this is not the case, you'll use a 3mm allen wrench for tension adjustment. The difference between under- and over-tightening is extremely small. Adjust as little as possible, test the knob, and adjust more if necessary. Adjustment should never require a full turn of the wrench.

1. Insert wrench into corresponding port.
  2. To make a knob easier to adjust, loosen by turning the wrench counterclockwise.
  3. To tighten the knob so it clicks, turn the wrench clockwise.
- Do not overtighten.**

## POWERING THE ROLLERS

To operate, use a power drill. We recommend a corded drill with  $\frac{3}{8}$ " chuck minimum and low-RPM capability. Attach drill to the drive shaft and use at low speed, 500 RPM is ideal.

## PULLING GRAIN

If rollers are not pulling grain, put drill in Reverse, run for 1-2 seconds, return drill setting to Forward and continue milling.

## BINDING

Rollers should spin freely and independently. If your rollers do not spin freely, loosen the bolts attaching the roller housing to the base, test each roller for independent spinning, and re-tighten the bolts.

The loosening releases any built-up torque on the endplates that can cause the rollers to seize up.

# GET CRUSHING

## TIPS & TRICKS FOR THE PERFECT GRIST



### WET MILLING

Nothing guarantees a perfect grist like hosing down your grain. You don't want it sopping wet, just moist. A few spritzes of water from a spray bottle will do just fine.



### HUSKS ARE KEY

Grains without a husk (i.e. rye and wheat) need a finer crush. Take advantage of your knobs and tighten up that gap to get the perfect crush.



### HOSE IT DOWN

Captain Crush® is completely corrosion-resistant. So when you're done milling, hose it down! Save some time and hassle