

YEAST WLP001 - California Ale

- warm yeast to room temp
  - sterilize water for yeast rehydration; cool to 77°-84°F
- yeast starter

ANVIL FOUNDRY

- wash/rinse grain basket
- wash/rinse lid
- wash/rinse perforated disc
- wash kettle

PUMP/CHILLER

- hook up pump and counterflow chiller (kettle>pump>chiller)
- recirculate warm soapy water, ~4G for 10 min.
- drain
- rinse out kettle with hose
- shoot hose through pump/chiller setup to rinse
- connect pump/chiller set up to kettle

MASH

- add grain basket
- heat mash water to strike temp 7.04G @ 165°F
- mill grains 12# 13.4oz 2-F; 10.4oz 120L
- adjust to mash temp 156°F
- mash-in
- mash 60 min.

← 11:09 AM - 12:40  
~:90

@5:36 everything washed & drying - stopped for put away. still need to pitch yeast, but call it 1 1/2 hrs.

MASH CONT'D

- wash/rinse mash paddle
- at 15 min. stir top third of grain bed
- insert perforated disc
- start recirculation (purge water from pump/chiller setup until you see beer)
- at 30 min. stir top third of grain bed
- at 45 min. stir top third of grain bed

sparge

- at 45 min. heat sparge water
- drain grain basket
- sparge

no sparge

- bump up temp for mash out (per recipe) 168°F
- drain grain basket

PREP for /BOIL

- GRAVITY READING (SG) 1.058 (Hydrometer) <sup>146°F</sup>
- heat to boil @ 2:37 1.056 (REFRACTOMETER)
- at 30 min., start recirculation
- at flameout, whirlpool, then stand for 15 minutes

s/u ice water tub for chiller needed 1 more bag of ice #16 NOT enough

PITCH YEAST

- start counterflow chiller 1.061 TILT @ 90°F
- GRAVITY READING (OG) 1.065 Hydrometer
- xfer to fermenter @ 85°F
- oxygenate
- pitch yeast at 77°-84°F

TILT WIRELESS HYDROMETER.

PREP FERMENTER

- wash/rinse fermenter
- 66 BREW BUCKET

Between :50 - :60 - stuck mash

NO FLOW BETWEEN :15 & :30

↳ valve not open enough don't think pump was dry though

\* losing too much heat when recirculating & can't maintain boil maybe run for ~ about :10 in middle & add :10 to overall boil?