

# HH 410 L Hopstand Cryo+HopEXTR



Category: 22 - Strong American Ale  
Subcategory: A - Double IPA

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Kettle Volume: 442,05 L @ 100 °C (16,71 °P)      Efficiency: 82,0%  
Boil Duration: 1,5 h      Attenuation: 91,0%  
Evaporation: 15,0 L  
Water Volume Added: 0,0 L  
Final Volume: 410,0 L @ 20 °C (17,26 °P)

## Ingredients:

75,0 kg (63,0%) Maris Otter Pale Ale Malt 5-7,5; Thomas Fawcett - added during mash  
40,0 kg (33,6%) Pilsen Malt 3/1,5; Best Malz - added during mash  
1,0 kg (0,8%) Caramel Malt Pils 4 EBC; B S/Best Malz - added during mash  
1,0 kg (0,8%) Pale Cara Malt 12-20; Thomas Fawcett - added during mash  
300,0 g (5,7%) Zeus 2015; Niko (13,9%) - added during mash  
500,0 g (9,5%) Zeus 2015; Niko (13,9%) - added during boil, boiled 90,0 m  
260,0 g (4,9%) Tomahawk®Extract; Yakima Chief (55,0%) - added during boil, boiled 45,0 m  
300,0 g (5,7%) Simcoe®Cryo Lupo (24,0%) - added during boil, boiled 20,0 m  
2,0 kg (1,7%) White Table Sugar (Sucrose) - added during boil, boiled 15,0 m  
500,0 g (9,5%) Centennial 2015; Brygg Selv (8,5%) - added during boil, boiled 5,0 m  
400,0 g (7,6%) Simcoe®17 Cryo Lupo; CraftCo (24,2%) - added during boil  
300,0 g (5,7%) Centennial 2015; Brygg Selv (8,5%) - added during boil  
400,0 g (7,6%) Simcoe®Cryo Lupo (24,0%) - steeped after boil  
200,0 g (3,8%) Centennial 2015; Brygg Selv (8,5%) - steeped after boil  
700,0 g (13,3%) Simcoe®17 Cryo Lupo; CraftCo (24,2%) - added dry to secondary fermenter  
700,0 g (13,3%) Centennial 2015; Brygg Selv (8,5%) - added dry to secondary fermenter  
700,0 g (13,3%) Zeus 2015; Niko (13,9%) - added dry to secondary fermenter  
6,0 ea White Labs WLP001 California Ale

## Style:

Recipe	Guideline	
Original Gravity: 17,26 °P	15,88 - 20,43	
Terminal Gravity: 1,64 °P	2,05 - 4,58	
Color: 12,09 EBC	11,82 - 27,58	
Alcohol: 8,5%	7,5% - 10,0%	
Bitterness: 99,3	60,0 - 120,0	

## Analysis:

Efficiency: 82,0%  
Kettle Gravity: 1,069  
Original Gravity: 1,071

Apparent	Real	Weight	Calories
Attenuation: 91,0%	73,1%	Alcohol: 33,75 g	232,86 kcal
Terminal Extract: 1,006	4,63 °P	Carbs: 22,82 g	86,71 kcal
		Protein: 1,6 g	6,39 kcal
% Alcohol: 8,5% ABV	6,71% ABW		Total: 325,96 kcal

## Summary:

Total	1 L
Fermentables: 119,0 kg	0,29 kg
Grist: 117,0 kg	0,29 kg
Water: 0,0 L	0,0 L
Hops: 5 260,0 g	12,83 g
Alpha Acid: 930,2 g	2,269 g
Iso-Alpha Acid: 40,694 g	0,099 g
Cost: 3940,42 NOK	9,61 NOK

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## Carbonation:

### Natural Conditioning

Beer Temp: 20,0 °C  
Priming Agent Rate: 3,82 g/L  
Priming Agent Mass: 2 174,69 g  
Volumes CO2: 2,25

### Forced Carbonation

Beer Temp: 7,22 °C  
Pressure: 0,82 bar  
Volumes CO2: 2,25

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## Notes:

Mash at 67 degrees. 17,0 (1070) (8,3 %) uten. Sukker ca+/- 0,2P/0,001 SG pr kg, 0,11%. 1,8 FG.

Kok i 95 minutter. Start gjæring på 19 grader, øke til 22.

250 L: 9 ss/108 g gips, 1s/16 MG, 0,5ss kalscl, 10gMS, 10 ml lactic. pH 5,35.

Sparge: 7ss gypsum, 0,5ss MG, 0,5ss kalscl, 10 g MS.

2,5 kg +/- slurry.

Alt: (Tørrhumling to ganger: 3x500 g. Etter 7-9 dager, 3x300g, totalt 12-14 dager for 3x500g).

Hopstand: Under 79 grader. 1/2 1 min humle flameout, resten under 79 grader.

Dry: Ca 1/2 av Zeus under gjæring.