

# Manhattan APA old

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **54**
- SRM **5.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **170 liter(s)**
- Trub loss **5 %**
- Size with trub loss **178.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **205.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **133.5 liter(s)**
- Total mash volume **178 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **133.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Sparge using **116.3 liter(s)** of **76C** water or to achieve **205.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	25 kg (56.2%)	80 %	5
Grain	Strzegom Pszeniczny	5 kg (11.2%)	81 %	6
Grain	Strzegom Pilzneński	5 kg (11.2%)	80 %	4
Grain	Strzegom Monachijski typ II	4 kg (9%)	79 %	22
Grain	Karmelowy Jasny 30EBC	2 kg (4.5%)	75 %	30
Grain	Acid Malt	0.5 kg (1.1%)	58.7 %	6
Grain	Płatki owsiane	3 kg (6.7%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	100 g	60 min	11.5 %
Boil	Mosaic	50 g	30 min	12 %
Whirlpool	Simcoe	100 g	30 min	13.2 %
Whirlpool	Amarillo	100 g	30 min	8.8 %
Dry Hop	Centennial	200 g	7 day(s)	9.4 %
Dry Hop	Waimea	200 g	7 day(s)	17 %
Whirlpool	Citra	100 g	30 min	12 %

Dry Hop	Citra	100 g	7 day(s)	13.5 %
Whirlpool	Waimea	200 g	30 min	17 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis US-05	Ale	Culture	200 g	Safale

## Notes

- Whirlpool: 10 minut 95°C, 10 minut 75°C, 10 minut 65°C  
zamiast magnum columbus, zamiast waimea wai-iti i Motueka  
*Feb 25, 2022, 10:59 AM*