



BEER & MALT HANDBOOK.



3.
**VIKING
MALT'S
PRODUCT
PORTFOLIO**

Viking Malt produces **full range** of malts. Below you can find a list of our malts available at the moment. As we develop our services according customer wishes malt portfolio may change as time passes. Please visit www.vikingmalt.com/what-we-offer to find accurate list of our malts under following topics.

BREWER'S CLASSIC:

- Viking Pilsner Malt
- Viking Pale Ale Malt
- Viking Pilsner Zero Malt
- Viking Vienna Malt
- Viking Wheat Malt

BREWER'S SPECIAL:

- Viking Munich Light Malt
- Viking Munich Dark Malt
- Viking Caramel Wheat
- Viking Caramel Malts
- Viking Caramel Pale
- Viking Cookie Malt
- Viking Chocolate Light Malt
- Viking Chocolate Dark Malt
- Viking Red Ale Malt
- Viking Golden Ale Malt
- Viking Sahti Malt
- Viking Rye Malt
- Viking Black Malt
- Viking Pearled Black Malt

- Viking Roasted Barley
- Viking Dextrin Malt

BREWER'S ORGANIC:

- Viking Pilsner Malt Organic
- Viking Pale Ale Malt Organic
- Viking Munich Light Organic
- Viking Caramel Malt 100 Organic
- Viking Black Malt Organic
- Viking Wheat Malt Organic

SMOKED SPECIAL:

- Viking Smoked Wheat Malt
- Viking Smoked Malt
- Viking Lightly Peated Malt
(smoke originating from apple, beech, cherry, sweet cherry and pear wood delivered from ecological, clean areas)

DISTILLER'S CHOICE:

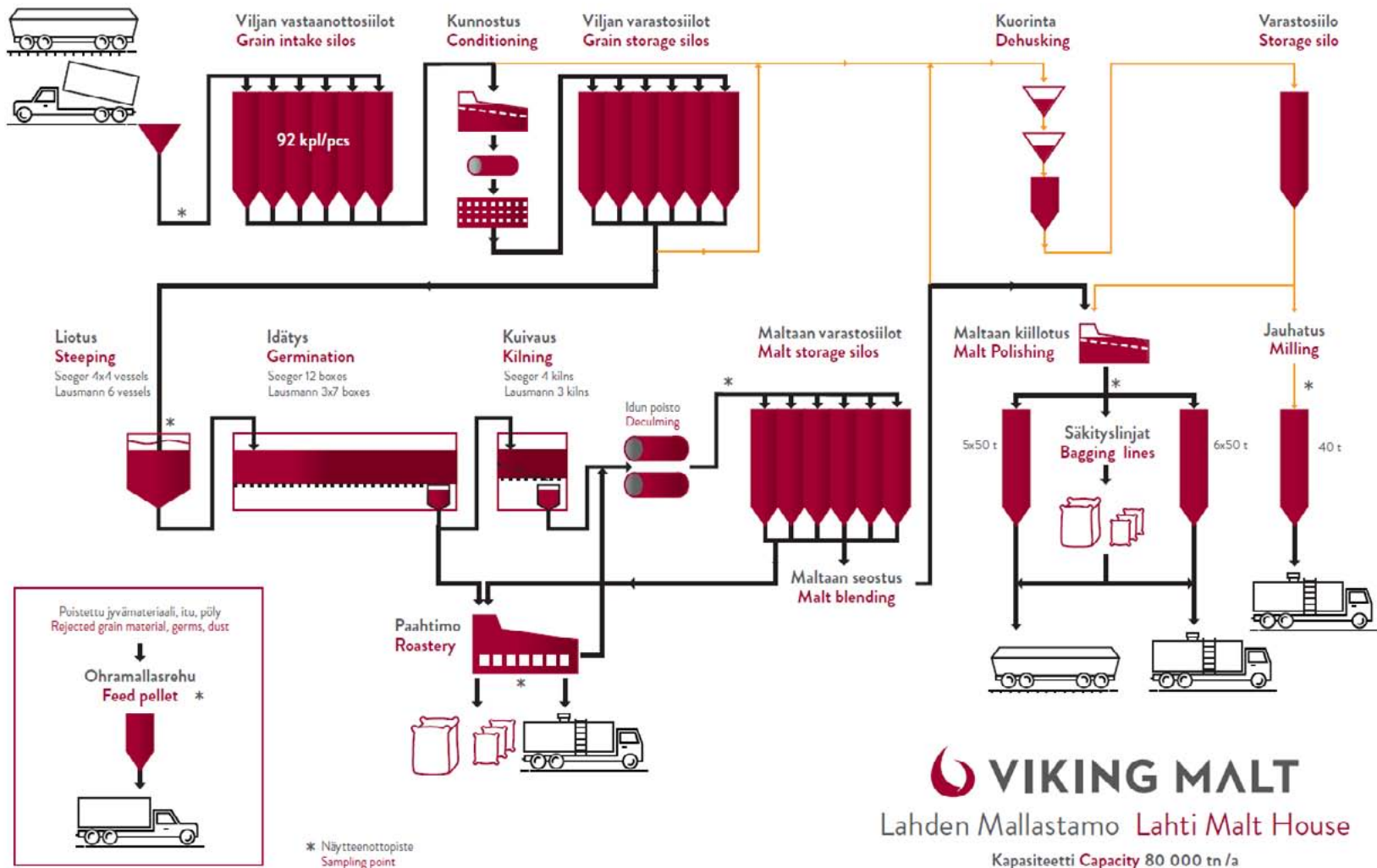
- Viking Pot Still Rye Malt
- Viking Enzyme Malt

MALTSTER'S SIGNATURE:

Would you like to have malting done according to your wishes? Or do you wish to have your own malt blend? We malt the raw material of your choice and make blends in accordance with your recipes. If we can match the production tonnage and your needs we have good basis for discussions. This service possibility is used more often than many brewers would think.

ARCTIC MALT CONCEPT:

Like maltster's signature but with your own raw material. We just do the malting for you. Many of our clients have used this possibility.



VIKING MALT

Lahten Mallastamo Lahti Malt House

Kapasiteetti Capacity 80 000 tn /a





4. BEER RECIPES

4MALT ALE

4Malt Ale is redhued all malt beer brewed with selected malts. The flavor of this Ale is full and malty but due to that it is pressurized with gas mix N 70%/CO2 30%. This beer is very smooth and easy going with nice creamy foam. Nice citric note may be noticed originating from cascade hop. Alcohol content promotes the overall taste experience giving a little warming effect in after taste. The flavor and odor of this beer can be said to be full, balanced and pleasant.



RAW MATERIALS:

75%	Viking Pilsner Malt
10%	Viking Caramel Malt 50
10%	Viking Cookie Malt
5%	Viking Red Ale Malt



FERMENTATION:

OG/FG 14,0/4,4
Mangrove Jacks Burton Union M79;
4 days +20°C/3 days +16°C/7 days +10°C/3 days -1°C.
From day 4 pressure +0,5 bar



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,6
66°C 60 min./78°C 1 min.



FILTRATION:

Beco SD30



BOILING:

60 min., normal pressure
pH set with lactic acid to 5,0
Bitterness units from bitter/aroma hops: 64%/36%
Bitter hops: Northern Brewer, 9,4% alpha, dosing beginning of boiling.
Aroma hops: Cascade 6,9% alpha. Dosing 50 min. from beginning of boiling



BEER ANALYSIS:

Alcohol	5,0 vol.-%
Color	17°EBC
Bitterness	15 BU
pH	4,2
Turbidity	0,7°EBC-F.U.

AMERICAN DREAM – AMERICAN IPA

American IPA is pale hoppy beer with rich maltiness covered by hop bitterness and new wave hop aroma – citrusy, fruity, floral etc. One of the best selling beer styles in craft beer industry. The key are well stored new hop varieties, neutral yeast low in esters and of course pale malts with a hint of wheat and special malt to balance the bitterness.



RAW MATERIALS:

80%	Viking Pilsner Malt
10%	Viking Wheat Malt
7%	Viking Munich Malt
2%	Viking Caramel Malt 100
1%	Viking Caramel Malt 150



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,3
64°C 60 min./71°C 15 min./76°C 5 min.



BOILING:

80 min., normal pressure
pH set with lactic acid to 5,0, calcium chloride
Bitter hops: Magnum, 14,5% alpha, dosing 60 minutes before the end of boiling.
Aroma hops: Columbus, 15,9% alpha, dosing 15 minutes before the end of boiling, Centennial 10% alpha, dosing 10

minutes before the end of boiling, Simcoe 11,9% alpha, dosing 5 minutes before the end of boiling, Citra 12,7% alpha, dosing 1 minute before the end of boiling.



FERMENTATION:

OG/FG 15,4/3,6
Wyeast 1056 American Ale yeast. 11 days (18 to 21°C, growing) + 5 days 12-16°C



BEER ANALYSIS:

Alcohol	6,4 vol.-%
Color	14°EBC
Bitterness	64 BU



SWEET HOME – AMERICAN PALE ALE

American Pale Ale is lighter, a little less bitter and hopped version of American India Pale Ale. This beer build on Viking Special Malts, slightly orange, refreshing beer with nice sweet maltiness interacting with new wave hop aroma – piney, citrusy, fruity, floral etc. Well balanced and crazy drinkable.



RAW MATERIALS:

73%	Viking Pale Ale Malt
16%	Viking Caramel Malt 30
11%	Viking Dextrin Malt



FERMENTATION:

OG/FG 12/2,8
Wyeast 1056 American Ale yeast. 7 days 19°C+14 days 14°C



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,3
62°C 30 min./72°C 30 min./76°C 5 min.



BEER ANALYSIS:

Alcohol	4,9 vol.-%
Color	14°EBC
Bitterness	40 BU



BOILING:

65 min., normal pressure
pH set with lactic acid to 5,0, calcium chloride
Bitter hops: 10%
Aroma hops: 90% added just before the end of the boil,
in Whirlpool and dry hopped.

THE CATCHER IN THE WHEAT – AMERICAN WHEAT

American Wheat is a simple, but enjoyable wheat beer. Refreshing and hoppy. Slightly hazy from wheat malt addition, but has no hefeweizen cloves and banana aroma, but complex fruity aroma of American hops. Slightly bready, moderately full with high, thick white head.



RAW MATERIALS:

49% Viking Pilsner Malt
49% Viking Wheat Malt
2% Viking Caramel Malt 30



FERMENTATION:

OG/FG 12/2,8
Wyeast 1010 American Wheat yeast. 7 days 17°C+14 days 14°C



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,3
68°C 60 min./76°C 5 min.



BEER ANALYSIS:

Alcohol 4,9 vol.-%
Color 10°EBC
Bitterness 20 BU



BOILING:

65 min., normal pressure
pH set with lactic acid to 5,0, calcium chloride
Bitter hops (30%): American – Chinook is recommended, dosing 60 minutes before the end of boiling.
Aroma hops (70%): Amarillo added 15 minutes before the end of the boil and Citra added 5 minutes before the end of the boil.



WARSAW BALTIC PORTER – BALTIC PORTER

The recipe is based on non-existing Baltic Porter brewed for many years in Poland. It is a very complex, rich malty beer with high alcohol content. Smooth and clean lager character is full of malty aromas of toffee, molasses, coffee and chocolate. This beer needs longer conditioning (half a year minimum) that helps to create dried red fruit aroma. Dark brown beer with little colored head, bitter from hops, alcohol and roasted malts, it's a fantastic beer preferred for a colder months.



RAW MATERIALS:

67%	Viking Pilsner Malt
15%	Viking Munich Dark Malt
9%	Viking Caramel Malt (600 EBC)
9%	Viking Dark Chocolate Malt (900 EBC)



FERMENTATION:

OG/FG 22/5,2
Lager yeast slurry. 10-20 days 7°C (until it reaches 9,6 gravity) + 60-90 days 0°C



MASHING:

Malt/Water ratio: 1/3
pH set with lactic acid to 5,3
52°C 20 min./62°C 20 min./72°C 30 min./76°C 1 min.



BEER ANALYSIS:

Alcohol	9,8 vol.-%
Color	130°EBC
Bitterness	40 BU



BOILING:

Boil until reaching OG 22 but no longer than 120 minutes, normal pressure
pH set with lactic acid to 5,0
Hops: 80% from aromatic hops at the start of the boil, 20% 5 minutes before the end of the boil (aromatic varieties from Middle Europe like Polish Marynka, Czech Zatec, etc.)

BASIC LAGER BEER

Basic Lager Beer is a yellow-gold hued all malt beer brewed with just using Viking Pilsner Malt as a malt base. This lager beer has malty character with refreshing taste. A slight citric note may be noticed originating from hops.

The color, flavor and odor of this beer can be said to be balanced and pleasant.



RAW MATERIALS:

100% Viking Pilsner Malt



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,6
52°C 10 min./65°C 30 min./72°C 15 min./80°C 1 min.



BOILING:

90 min., normal pressure
pH set with lactic acid to 5,0
Bitterness units from bitter/aroma hops: 80%/20%
Bitter hops: Magnum, 11,9% alpha, dosing beginning of boiling
Aroma hops: Cascade 6,9% alpha. dosing 80 minutes from beginning of boiling



FERMENTATION:

OG/FG 10,1/1,5
Lager Yeast slurry. 14 days +12-14°C 0,25 bar + 1 day -2°C



FILTRATION:

Beco SD30



BEER ANALYSIS:

Alcohol	4,5 vol.-%
Color	10°EBC
Bitterness	26 BU
pH	4,3
Turbidity	0,3°EBC-F.U.

AMERICAN MONK – BELGIAN IPA

Belgian IPA is a marriage between traditional Belgian Tripel and recently popular IPA's. Fresh maltiness, high bitterness and complex, citrusy and piney New World hops are typical for famous American beer, while Belgian tradition brings in high alcohol content and spicy, clove-like phenol originating from Belgian yeast as well as pleasant and sweet fruity esters. High carbonation builds high, dense, white head.



RAW MATERIALS:

50%	Viking Pilsner Malt
38%	Viking Munich Light Malt
8%	Table sugar
4%	Viking Caramel Malt 50



MASHING:

Malt/Water ratio: 1/3,5
pH set with lactic acid to 5,3
65°C 30 min./72°C 20 min./76°C 5 min.



BOILING:

Boil 90 minutes, normal pressure
pH set with lactic acid to 5,0
Hops: 60% from bitter hops 60 minutes after start of the boil, 30% 5 minutes before the end of the boil (New Wave American hops), it can be as well richly dry hopped or hopped in Whirlpool with American Hops. Sugar added 5 minutes before the end of the boil



FERMENTATION:

OG/FG 18,3/2,1
Wyeast Belgian Ale Yeast (1214). 14 days at 18-24°C
(temperature is raised steadily) + 28 days at 14°C



BEER ANALYSIS:

Alcohol	8,9 vol.-%
Color	18°EBC
Bitterness	65 BU

BLACK CITRUS – IPA

Black Citrus – IPA, an all malt beer brewed with punch of special malts from Viking Malt portfolio. Strong taste of chocolate supported with dark color and intensive citric odor from hops is a target and may be over the edge for some one. Fruitness is strongly present arising from dry hopping. This Black beer is crystal clear.



RAW MATERIALS:

59%	Viking Pilsner Malt
15%	Viking Wheat Malt
10%	Viking Caramel Malt 100
8%	Viking Munich Light Malt
5%	Viking Chocolate Light Malt
2%	Viking Chocolate Dark Malt (fine milling, dosed during last 10 min. of boiling)
1%	Viking Chocolate Light Malt (fine milling, dosed during last 10 min of boiling)



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,5
53°C/30 min./63°C 45 min./76°C 10 min.



BOILING:

60 min., normal pressure
pH set with lactic acid to 4,7
Bitterness units from bitter/aroma hops: 86%/14%

Bitter hops: Herkules, 13,5% alpha, dosing beginning of boiling.
bitter/aroma hop: Citra 13,4% alpha dosing into Whirlpool



FERMENTATION:

OG/FG 13,2/2,6
Wyeast Lab #1056, American Ale. 6 days 20°C + 7 days 18°C (0,1 bar counter pressure) + 2days -1°C.



FILTRATION: optional

Dry Hopping: Cascade 6,8% alpha, dosing 1,2 g/litre, 6h before filtration.
Beco SD 30



BEER ANALYSIS:

Alcohol	5,8 vol.-%
Color	75°EBC
Bitterness	40 BU
pH	4,2
Turbidity	1,1°EBC-F.U.

CITRIC WHEAT BEER

Filtered Wheat beer brewed with Viking Pale Ale Malt together with Viking Dextrin and Wheat Malts. This Wheat beer can be said to have well balanced and refreshing taste. Process pH adjustments done with citric acid. Peeled bitter orange and coriander seeds added during boiling giving nice citric nuances into taste supported by Cascade hop. Acidity of citrus is nicely smoothed with sweetness originating from Dextrin Malt.



RAW MATERIALS:

60%	Viking Wheat Malt
20%	Viking Dextrin Malt
20%	Viking Pale Ale Malt



MASHING:

Malt – water ratio in mashing 1:4
pH set to 5,6 with 100% citric juice concentrate
58°C/63°C/72°C/76°C



BOILING:

70 min., normal pressure
pH set with citric acid to 5,0
Bitterness units from bitter/aroma hops 47%/53%
Bitter hops: Magnum 11,9% alpha, dosing beginning of boiling
Aroma hops: Hallertau Hersbrucker 2,9% alpha 60 min.
from boiling, Cascade 5,9% alpha last minute of boiling.
Same time add also Peeled bitter orange 0,23 mass-%
and Coriander seeds 0,45 mass-% from mass of malts



FERMENTATION:

OG 13,7°Plato
FG 4,6°Plato
4 days 20°C no counter pressure, 4 days 16°C + 13 days
13°C pressure 0,25 bar
Yeast: Mangrove Jack's Bavarian Wheat Yeast M20



FILTRATION:

Beco KDS12



BEER ANALYSIS:

Alcohol	4,7 vol.-%
Color	8°EBC
Bitterness	14 BU
pH	4,5
Turbidity	0,9°EBC-F.U.

MOONLESS NIGHT – COFFEE AMERICAN PORTER

Dark beer with rich malt character and aroma topped with roasted coffee note. Oats and dark malts are responsible for thickness and coffee adds drinkability. Aroma is very complex: coffee notes, chocolate, roasted malt, dark fruits, molasses, toffee, caramel, toastiness. Same with taste – complex maltiness is responsible for sweetness, bitterness is derived from hops, roasted malts and coffee that are responsible for bit sour, dry finish.



RAW MATERIALS:

19%	Viking Pale Ale Malt
69%	Viking Pilsner Zero Malt
5%	Viking Caramel Malt 300
3%	Flaked Oats
2%	Viking Chocolate Dark Malt
2%	Viking Roasted Barley



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,3
Gelatinize oat flakes prior to adding to the bath
52°C 10 min./62°C 30 min./72°C 30 min./76°C 5 min.



BOILING:

Boil 80 minutes, normal pressure
pH set with lactic acid to 5,0
Hops: 50% from bitter hops 20 minutes after start of the

boil, 50% 5 minutes before the end of the boil (aromatic New World varieties like Cascade or Chinook)
Thickly crushed coffee: in a bag (or smaller bags) after the boil for 5 minutes. The amount depends on amount of beer



FERMENTATION:

OG/FG 15/3,5
Safale S-04 dried yeast. 6 days at 19°C + ~20 days at 14°C



BEER ANALYSIS:

Alcohol	6,3 vol.-%
Color	60°EBC
Bitterness	30 BU

VIKING DARK BOCK

Viking Dark Bock is a beer containing punch of our special malts. The color is dark brown with copper hue while foam is long lasting and refreshing light in color. The taste can be said to be full, with some toasty and caramel notes. Bitterness level nicely supporting the caramel-malty taste.



RAW MATERIALS:

42%	Viking Munich Dark Malt
41%	Viking Pilsner Malt
10%	Viking Caramel Malt 100
5%	Viking Caramel 150
2%	Viking Chocolate Light Malt



MASHING:

Malt/Water ratio: 1/3
pH set with lactic acid to 5,6
57°C 15 min./65°C 30 min./73°C 10 min./77°C 1 min.



BOILING:

60 min., normal pressure
pH set with lactic acid to 4,7
Bitter hops: Hallertau Hersbrucker 2,1%, dosing beginning of boiling



FERMENTATION:

OG/FG 16.6/4,0
German Bock Lager yeast, White Labs #WLP833
12 days +11°C/4 days + 13°C/7 days + 1°C,
pressure 0,25 bar



FILTRATION:

Beco SD30



BEER ANALYSIS:

Alcohol	6,9 vol.-%
Color	67°EBC
Bitterness	25 BU
pH	4,5
Turbidity	0,2°EBC-F.U.

GRODZISKIE / GRÄTZER

Unique traditional Polish beer style, recently gaining more and more popularity around the world. Low-gravity, highly-carbonated pale ale brewed with 100% of oak-smoked wheat malt. Crisp and refreshing, distinctive smoke aroma is fulfilled by low esters from yeast. Slightly higher acidity and bitterness are also present.



RAW MATERIALS:

100% Viking Smoked Wheat Malt



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,3
53°C 30 min./70°C 30 min./75°C 5 min.



BOILING:

120 min., normal pressure
pH set with lactic acid to 5,0, calcium sulfate
Hops: aromatic varieties from Middle Europe like Polish Nowotomyski, Czech Zatec, Polish Lublin, German Hallertauer Mittelfrüh or Tettnanger. Most of them having ~5% alpha acid. It doesn't have to be fresh. Two additions: 80% of hops 15 minutes after start of the boiling and 20% 30 minutes before the end.



FERMENTATION:

OG/FG 7,8/1,8
Wyeast 1056 American Ale yeast. 11 days (18°C to 21°C, growing) + 5 days 12°C-16°C



BEER ANALYSIS:

Alcohol	3,1 vol.-%
Color	9°EBC
Bitterness	22 BU



MALTY ALE

Malty Ale is an all malt beer brewed with malts from Viking Ale Malt family, spiced with Viking Caramel Malt 50. The flavor of this Ale beer is strong and malty, but also lots of fruitiness can be found. The alcohol content, though not very high, promotes the overall taste experience giving a little warming effect in general taste. The flavor and odor of this beer can be said to be full, balanced and pleasant.



RAW MATERIALS:

43%	Viking Pale Ale Malt
26%	Viking Golden Ale Malt
16%	Viking Caramel Malt 50
11%	Viking Red Ale Malt
4%	Viking Red Active Malt



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,6
63°C 60 min./75°C 10 min.



BOILING:

60 min., normal pressure
pH set with lactic acid to 5,0
Bitterness units from bitter/aroma hops: 79%/21%
Bitter hops: Magnum, 11,9% alpha, dosing beginning of boiling.
Bitter/aroma hop: East Kent Goldings 6,2% alpha dosing after 30 min.
Aroma Hop: Saaz 2,2% alpha dosing after 55 min.



FERMENTATION:

OG/FG 14,4/3,9
Wyeast Lab #1214, Belgian Abbey. 4 days 19°C + 21 days 19°C (0,1 bar counter pressure)
Notice: #1214 yeast is quite often a very slow starter



FILTRATION: optional

Beco K2 (not totally clear end result, some yeast will go through)



BEER ANALYSIS:

Alcohol	5,6 vol.-%
Color	44°EBC
Bitterness	25 BU
pH	4,4
Turbidity	5,8°EBC-F.U.

PILSNER ROSE' SINGLE HOP

Filtered Pilsner Beer with good body together with nice foam and head retention supported by Viking special malts. Reddish color and good body originating from Caramel 50 Malt, bisquit type nuances from Cookie Malt and Vienna adding some malty and nutty tastes. Strong but not overwhelming hoppy taste is coming from Saaz.



RAW MATERIALS:

70%	Viking Pilsner Malt
24%	Viking Caramel Malt 50
3%	Viking Cookie Malt
3%	Viking Vienna Malt



YEAST:

Urquell lager 2001. Notice: start of fermentation might be slow with this yeast. After fermentation slight notes of diacetyl are wanted for this beer. If diacetyl is not wanted raise the last 3 fermentation day temp. up to 18°C.



MASHING:

Malt – water ratio in mashing 1:3
Infusion mashing 58°C/63°C/73°C/78°C



FILTRATION:

Beco SD30



BOILING:

60 min., normal pressure
Hops: Saaz
Additions: 70% in the beginning of boiling 30% to Whirlpool



BEER ANALYSIS:

Alcohol	5,3 vol.-%
Color	23°EBC
Bitterness	43 BU
pH	4,6
Turbidity	0,2°EBC-F.U.



FERMENTATION:

OG 13,2°Plato
FG 3,3°Plato
Fermentation 14 days + 10°C counter pressure 0,5 bar,
3 days -2°C



RED LAGER

Red lager is a gold-red hued all malt beer brewed with punch of special malts. The flavor of this lager beer has strong malty character but also lots of fruitiness can be found. A special citric note may be noticed originating from cascade hop. The rather high alcohol content promotes the overall taste experience giving a little warming effect in after taste. The flavor and odor of this beer can be said to be full, balanced and pleasant.



RAW MATERIALS:

75%	Viking Pilsner Malt
15%	Viking Caramel Malt 50
8%	Viking Red Ale Malt
2%	Viking Munich Light Malt



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,6
54°C 10 min./63°C 30 min./ 72°C 20 min./ 76°C 1 min.



BOILING:

60 min., normal pressure
pH set with lactic acid to 5,0
Bitterness units from bitter/aroma hops: 50%/50%
Bitter hops: Northern Brewer, 7,5% alpha, dosing beginning of boiling.
Aroma hops: Cascade 6,3% alpha. Dosing 50% after 50 min., 50% to Whirlpool



FERMENTATION:

OG/FG 15,9/2,7
Lager yeast slurry. 4 days + 9 days 12°C + 2days -2°C



FILTRATION:

Beco SD30



BEER ANALYSIS:

Alcohol	7,4 vol.-%
Color	20°EBC
Bitterness	18 BU
pH	4,50
Turbidity	0,5°EBC-F.U.

MALT MANDALA – RUSSIAN IMPERIAL

Black as a moonless night. Thick as chocolate syrup with rich, brown head. Dominating the taste on every field. Burned, roasted malt, chocolate, coffee, molasses, toffee, oatmeal cookies. Whole symphony of flavors completed with top-fermenting yeast and New World hops. Deep, warming, bitter-sweet finish. Beer for tasting on a cold, winter nights.



RAW MATERIALS:

50%	Viking Pilsner Zero Malt
20%	Viking Munich Light Malt
4%	Table sugar
5%	Viking Wheat Malt
4%	Viking Chocolate Dark Malt
4%	Viking Smoked Beech Malt
5%	Viking Caramel Malt 150
2%	Brown sugar
2%	Viking Caramel Malt 600
2%	Viking Roasted Barley
2%	Viking Rye Malt



MASHING:

Malt/Water ratio: 1/3,5
pH set with lactic acid to 5,3
65°C 45 min./71°C 15 min./76°C 5 min.



BOILING:

Boil 120 minutes, normal pressure
pH set with lactic acid to 5,0.
Hops: 60% from bitter hops 60 minutes after start of the boil, 30% 5 minutes before the end of the boil (New Wave American hops). Sugar added 5 minutes before the end of the boil.



FERMENTATION:

OG/FG 23/4,3
WLP004 Irish Ale. 21 days at 15°C + 21 days at 14°C



BEER ANALYSIS:

Alcohol	10,8 vol.-%
Color	100°EBC
Bitterness	100 BU



SINGLE MALT JUNIPER LAGER

This lager beer is a yellow-gold hued all malt beer brewed with just a single top quality Viking Pilsner malt and tuned with Juniper Chips during whirlpool operations. The flavor of this lager beer has malty character with refreshing fruity flavor and a strong punch of Juniper in taste and odor. A slight citric note may also be noticed originating from cascade hop.

The color, flavor and odor of this beer can be said to be balanced and pleasant. Juniper brings something special into this beer.



RAW MATERIALS:

100% Viking Pilsner Malt
+2% Juniper chips, calculated from mass of the malt



WHIRLPOOL:

Juniper chips dosed on the bottom of whirlpool before entering of boiling hot wort.



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,6
52°C -10 min./65°C 30 min./72°C 15 min./80°C 1 min.



FERMENTATION:

OG/FG 10,0/1,4
Lager Yeast slurry. 13 days + 12°C-14°C 0, 4 bar + 1 day
-2°C



BOILING:

60 min., normal pressure
pH set with lactic acid to 5,0
Bitterness units from bitter/aroma hops: 70%/30%
Bitter hops: Magnum, 11,9% alpha, dosing beginning of boiling
Aroma hops: Cascade 6,9% alpha. Dosing 50 min. beginning of boiling



FILTRATION:

Beco SD30



BEER ANALYSIS:

Alcohol	4,3 vol.-%
Color	6°EBC
Bitterness	19 BU
pH	4,2
Turbidity	0,7°EBC-F.U.

SMOKED LAGER

Smoked Lager is a yellow-gold hued all malt beer. The flavor has strong malty character with nice, not too overlapping smoky character originating from Pear wood. Slight citric note may also be noticed originating from cascade aroma hop, giving some fresh extra for this beer.

The flavor and odor can be said to be smoky, balanced and pleasant.



RAW MATERIALS:

50% Viking Pilsner Malt
50% Viking Smoked Malt



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,6
48°C 15 min./52°C 10 min./67°C 40 min./72°C 15 min./80°C 1 min.



BOILING:

60 min., normal pressure
pH set with lactic acid to 5,0
Bitterness units from bitter/aroma hops: 75%/25%
Bitter hops: Magnum pellets 11,9% alpha, dosing beginning of boiling
Aroma hops: Cascade pellets 7,8% alpha. Dosing 50 minutes from start of boiling



FERMENTATION:

OG/FG 10/1,5
Commercial Lager yeast slurry. 4 days 14°C
+ 10 days 12°C + 1 day -2°C



FILTRATION:

Beco SD30. Can also be unfiltered



BEER ANALYSIS:

Alcohol	4,7 vol.-%
Color	6°EBC
Bitterness	25 BU
pH	4,5

BELGIAN GOLD – BELGIAN DUBBEL

It is a strong, malty beer of deep copper color and rich, thick white head. Perfect marriage of complex malts, Belgian yeast aromas, alcohol and delicate earthy noble hop notes. High carbonation makes it drinkable despite high extract. The aroma covers many esters (stone fruits like peaches and plums, dried red fruits remaining of prunes and raisins), malt toffee, cookie-like aroma, slight soft alcohol and clove-like, spicy phenol from Belgian yeast. Produced and drunk in Belgium for years and now popular all over the world.



RAW MATERIALS:

39%	Viking Pilsner Malt
32%	Viking Pale Ale Malt
10%	Viking Wheat Malt
6%	Candied syrup
6%	Viking Munich Light Malt
4%	Viking Caramel Malt 100
3%	Viking Caramel Malt 200



MASHING:

Malt/Water ratio: 1/3,5
pH set with lactic acid to 5,3
65°C 45 min./71°C 15 min./76°C 5 min.



BOILING:

Boil 90 min., normal pressure
pH set with lactic acid to 5,0
Hops: 70% from bitter hops 30 minutes after start of the

boil, 30% 10 minutes before the end of the boil (Belgian aromatic hops). Candied syrup added 5 minutes before the end of the boil



FERMENTATION:

OG/FG 18/3,3
Wyeast 3538. 14 days at 16°C-24°C (temperature is raised steadily) + 21 days at 14°C



BEER ANALYSIS:

Alcohol	8,1 vol.-%
Color	25°EBC
Bitterness	40 BU

MANNEKEN PIS – BELGIAN TRIPEL

Tripel is strong, light malty beer that despite his high alcoholic content is refreshing and drinkable. Simple grist results in pleasant maltiness that is nicely balanced by phenol (clove-like, papery, spicy) and fruit (stone fruits, banana, pear) aromas from Belgian yeast. Slight alcohol might be present. The beer should be richly gassed with white, thick head. Malt bitterness is intensive to balance sweetness from the aroma. It can be dangerously complex and easy-drinking beer.



RAW MATERIALS:

90% Viking Pilsner Malt
10% Table sugar



MASHING:

Malt/Water ratio: 1/3
pH set with lactic acid to 5,3
65°C 30 min./72°C 20 min./76°C 5 min.



BOILING:

Boil 90 min., normal pressure
pH set with lactic acid to 5,0
Hops: 70% from bitter hops 30 minutes after start of the boil, 30% 10 minutes before the end of the boil (Belgian aromatic hops). Sugar added 5 minutes before the end of the boil



FERMENTATION:

OG/FG 19/3
Wyeast 1214 Belgian Abbey. 14 days at 18°C-24°C
(temperature is raised steadily) + 28 days at 14°C



BEER ANALYSIS:

Alcohol	8,9 vol.-%
Color	12°EBC
Bitterness	40 BU

VIKING APA

Viking APA is a non-filtered beer made with our selection of special malts. A moderate hop aroma together with strong enough malty taste makes this beer balanced and drinkable. Hazy appearance of this beer supports the taste sensation.



RAW MATERIALS:

72%	Viking Pale Ale Malt
16%	Viking Dextrin Malt
12%	Viking Caramel Pale



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,5
62°C 30 min./72°C 10 min./76°C 5 min.



BOILING:

60 min., normal pressure
pH set with lactic acid to 4,8
Bitterness unit from bitter/aroma hops: 70%/30%
Bitter hops: Chinook 14,6% dosing beginning of boiling,
Aroma hops: Saaz 3,8% dosing 45 min. from beginning
Chinook 14,6% dosing 55 min. from beginning
Centennial 8,5% dosing into Whirlpool



FERMENTATION:

OG/FG 12,2/1,7
Yeast: Safale US-05 14 days 19°C + 2 days 5°C



FILTRATION:

No filtration



BEER ANALYSIS:

Alcohol	5,1 vol.-%
Color	12°EBC
Bitterness	29 BU

NEW ENGLAND DOUBLE IPA

This beer has been tuned from original recipe made by Wesala Brewery. This NE IPA is an evening juice for grown-ups. Dry, with a little bit higher alcohol hidden from the view, it refreshes you with rather clean fermentation profile and juicy, hoppy aromas that makes you crave for another sip. Cloudy, little bit thick from oats added it's dangerously addicting, like fresh hop juice.



RAW MATERIALS:

51%	Viking Pilsner Zero Malt
23%	Oat Malt
10%	Viking Wheat Malt
12,5%	Viking Dextrin Malt
3,5%	Viking Golden Ale Malt



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,5
65°C 20min / 70°C 30min / 80°C 1 min.



BOILING:

60min, normal pressure
pH set with lactic acid to 5,0
Bitterness units from bitter/aroma hops: 48% / 52%
Bitter hops: Columbus Tomahawk Zeus 15,3 % AA,
dosing beginning of boiling.
Aroma hops: Citra 12% AA, Motueka 7% AA, El-Dorado
12,9% AA, all dosed separately 1,1g/l beginning of whirl-
pooling



FERMENTATION:

OG/FG 17,0/3,3
SafAle English Ale S-04
15 days +19C / 2 days + 5°C / 1 days ±0°C / 3 days -1°C.
pressure +0,15bar



DRY HOPPING:

Beginning of 3rd fermentation day Citra 12% AA, Motueka
7% AA, El-Dorado 12,9% AA, all dosed 1,5g/l separately
Beginning of 13th fermentation day Citra 12% AA,
Motueka 7% AA, both dosed 1,5g/l separately



BEER ANALYSIS:

Alcohol	7,7 vol.-%
Color	20°EBC
Bitterness	50 BU
pH	4,5
Turbidity	147 °EBC-F.U.



VIKING LOW LAGER

Viking Low Lager is an easy to drink all malt beer with modest alcohol content. A refreshing drink after many activities.



RAW MATERIALS:

100% Viking Red Active Malt



MASHING:

Malt/Water ratio: 1 / 7,5
pH settles itself in the range of 5,3-5,5
63°C, ramping directly 1°C/min to mash out temp 77°C 1 min.



BOILING:

60 min., normal pressure
pH adjustment not needed
Bitterness units from bitter/aroma hops: 50% / 50%
Bitter hops: Magnum 11% AA, dosing beginning of boiling
Aroma hops: Cascade 6,8% AA, dosing beginning of whirlpooling



FERMENTATION:

OG/FG 4,9/1,5
Lallemand Diamond lager
5 days +13C / 2 days +15°C / 5 days +5C / 2 days -1°C.
pressure +0,15bar



FILTRATION:

Beco SD 30



BEER ANALYSIS:

Alcohol	1,6 vol-%
Color	17°EBC
Bitterness	22 BU
pH	4,3
Turbidity	0,3 °EBC-F.U.

VIKING ORANGE WHEAT ALE

Viking Orange Wheat Ale is an orange colored special wheat beer, with great body and nice head. Hopping is planned to support the great color of this beer, giving citric, especially mandarina flavor into this beer. Fermented with US-05 yeast the flavor is more straight without typical wheat beer nuances. Enjoy!



RAW MATERIALS:

60% Viking Red Active Malt
40% Viking Wheat Malt



MASHING:

Malt/Water ratio: 1/5
pH settles itself in the range of 5,3-5,5
63°C 30min / 73°C 20min / 77°C 1 min.



BOILING:

Boil 60 min., normal pressure
pH set with lactic acid to 5,0
Bitterness units from bitter/aroma hops: 75% / 25%
Bitter hops: Citra 12% AA, dosing beginning of boiling
Aroma hops: Mandarina Bavaria 8,5% AA, dosing beginning of whirlpooling



FERMENTATION:

OG/FG 13,1 / 2,8
SafAle US-05
10 days +18C / 1 day -1°C. pressure +0,15bar



DRY HOPPING:

Beginning of fermentation day 4, Mandarina Bavaria 8,5%
AA dosed 2,2g/l



FILTRATION:

Beco SD 30



BEER ANALYSIS:

Alcohol	5,5 vol-%
Color	22° EBC
Bitterness	31 BU
pH	4,2
Turbidity	0,4 °EBC-F.U.



VIKING PREMIUM LAGER

Viking Premium Lager is a single hopped beer, with great body and nice head. Having a modest but noticeable traditional hopping great crystal clear appearance, makes this beer easy to drink and enjoy in many occasions.



RAW MATERIALS:

66%	Viking Pilsner Malt
17%	Viking Dextrin Malt
12%	Viking Golden Ale Malt
5%	Viking Wheat Malt



FERMENTATION:

OG/FG 10,7 / 2,4
Yeast: Saflager W-34/70
14 days +12°C / 3 days +17°C / 14 days +4°C / 2 days -1°C.
pressure +0,15bar



MASHING:

Malt/Water ratio: 1/4
pH set with lactic acid to 5,5
58°C / 63°C 5min / 73°C 10min / 77°C 1 min.



FILTRATION:

Beco SD 30



BOILING:

60min, normal pressure
pH set to 5,0
Bitterness units from bitter/aroma hops: 79% / 21%
Bitter hops: Hallertauer 4,8% AA, dosing beginning of boiling
Aroma hops: Hallertauer 4,8% AA, dosing beginning of whirlpooling



BEER ANALYSIS:

Alcohol	4,5 vol-%
Color	7°EBC
Bitterness	19 BU
pH	4,4
Turbidity	0,8 °EBC-F.U.



www.vikingmalt.com