

C12C

BREWING OF BEER (cleaning of raw materials A23N; pitching and depitching machines, cellar tools C12L; propagating yeasts C12N1/14; non-beverage ethanolic fermentation C12P7/06)

Definition statement

This subclass/group covers:

This group covers

Raw materials used in preparing beer (e.g. malt, hops), and treatment thereof.

Preparation of wort.

Fermentation processes for beer.

Processes for producing special kinds of beer.

Brewing devices.

Beer per se.

Relationship between large subject matter areas

[C12H](#) deals only with pasteurisation, sterilisation, preservation, purification, clarification or ageing of alcoholic beverages.

Post-fermentation treatment such as carbonation is subject matter of this subclass but is classified in [C12H](#) when combined with subject matter of that subclass.

Low alcohol beer is classified in [C12C 12/04](#).

Low alcohol of wine is classified in [C12G 1/00](#) and others low alcohol beverages are classified in [C12G 3/08](#).

References relevant to classification in this subclass

This subclass/group does not cover:

Preparation of malt for use as foodstuffs	A23L
Cleaning of raw materials, e.g. fruit and vegetables	A23N
Containers with means for effervescing potable liquids	B65D 85/73

Pitching or depitching machines, or cellar tools	C12L
Propagating yeasts	C12N 1/14

Informative references

Attention is drawn to the following places, which may be of interest for search:

Separation of solids from liquids in general	B01D
Ethanol fermentation for non-beverage purposes	C12P 7/06

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Beer	The term beer includes alcoholic drinks produced by the fermentation of sugars derived from grains of barley, wheat, sorghum, maize or rice.
Brew kettles	Apparatus in which the wort is boiled.
Caramel/black malt	Malt which has been sufficiently heated to caused sugars to caramelize.
Fermentation	Process whereby yeast converts sugar to ethyl alcohol.
Germ	The germ is the shoot which has started to grow from a grain.
Immobilized yeast	The yeast is absorbed on a material instead of being dispersed in the liquid.
Low alcohol	This is beer which has a lower alcohol content than would be expected from

	complete fermentation of the wort.
Malt	Malt is the term used for partially germinated and subsequently dried grains in which part of the starch has been converted to sugar.
Mash	Mash is a mixture of malt and water. Mashing refers to the process of extracting the sugars from the grains, often at elevated temperature.
Pitching	This is the process of adding yeast to the wort.
Steeping	Soaking the grains in water primarily to stimulate germination.
Wort	Wort is the liquid part of the mash which is left after removal of the insolubles

Synonyms and Keywords

In patent documents the expression/word "malt" is often used with the meaning "malted barley".

In patent documents the expression/word " Secondary sources of starch/sugar" is often used with the meaning " adjuncts".

In patent documents the expression/word ""wort" is often used with the meaning "beerwort".

In patent documents the expression/word "Brew kettles" is often used with the meaning "coppers".

In patent documents the expression/word " Water when used in brewing" is often used with the meaning "liquor".

In patent documents the following expressions/words "Low alcohol", "Reduced alcohol" and "dealcoholized" are often used as synonyms.

C12C 1/00

Preparation of malt

Definition statement

This subclass/group covers:

Methods or apparatus for preparing malt for brewing beer.

References relevant to classification in this group

This subclass/group does not cover:

Malt products for use in food	A23L 1/185
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Special rules of classification within this group

Methods or apparatus for preparing malt for purposes other than brewing beer may/might be classified in this group if there is a similarity with typical beer brewing methods/apparatus and/or if no group that is more pertinent exists.

C12C 1/02

Pretreatment of grains, e.g. washing, steeping

Definition statement

This subclass/group covers:

Methods or apparatus for the pretreatment of brewing grains, such as cleaning, washing or steeping.

References relevant to classification in this group

This subclass/group does not cover:

Preparation of grain for milling	B02B
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C12C 1/027

Germinating

Definition statement

This subclass/group covers:

Germination of brewing grains.

C12C 1/0275

[N: on single or multi-stage floors]

Definition statement

This subclass/group covers:

Germination of brewing grains on single or multi-stage floors.

References relevant to classification in this group

This subclass/group does not cover:

Germination in boxes or drums	C12C 1/033
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Special rules of classification within this group

For the distinction of "floors" from "boxes" the dimensions are relevant: the term "floors" designates large surfaces (such as classical hurdles), whereas "boxes" implies relatively small surface areas.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Hurdle	Malt germination (or drying) floor
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C12C 1/033

in boxes or drums

Definition statement

This subclass/group covers:

Germination of brewing grains in boxes or drums.

References relevant to classification in this group

This subclass/group does not cover:

Germination of brewing grains on single or multi-stage floors	C12C 1/0275
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Malt drying on moving supports (may involve drums)	C12C 1/12
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Special rules of classification within this group

For the distinction of "floors" from "boxes" the dimensions are relevant: the term "floors" designates large surfaces (such as classical hurdles), whereas "boxes" implies relatively small surface areas.

C12C 1/047

Influencing the germination by chemical or physical means

Definition statement

This subclass/group covers:

Methods or apparatus for preparing malt for brewing beer, wherein the germination is influenced by chemical and/or physical means.

C12C 1/053

by irradiation or electric [N: or wave energy] treatment

Definition statement

This subclass/group covers:

Methods or apparatus for preparing malt for brewing beer, wherein the germination is influenced by irradiation, electric or wave energy treatment.

C12C 1/067

Drying

Definition statement

This subclass/group covers:

Methods or apparatus for preparing brewing malt, wherein the brewing grains are subjected to drying.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Continuous or semi-continuous drying	C12C 1/125
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Kilning, kiln-drying	Drying of malt in a kiln
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C12C 1/073

Processes or apparatus specially adapted to save or recover energy

Definition statement

This subclass/group covers:

Methods or apparatus specially adapted to save or recover energy during drying of brewing grains.

Special rules of classification within this group

Since saving or recovering energy is a general goal of grain drying, this symbol should only be given if the respective means are specifically emphasised and/or claimed, i.e. if they form an important aspect of the invention.

C12C 1/10

Drying on fixed supports

Definition statement

This subclass/group covers:

Methods or apparatus for preparing brewing malt, wherein the brewing grains are subjected to drying on fixed supports.

C12C 1/12

Drying on moving supports

Definition statement

This subclass/group covers:

Methods or apparatus for preparing brewing malt, wherein the brewing grains are subjected to drying on moving supports.

Special rules of classification within this group

This symbol is only to be given if the supports move during the drying process (i.e. rotating hurdles). For instance, floor segments that can be inclined to discharge grains do not fall within this group, because they are actuated only when drying is complete.

C12C 1/125

Continuous or semi-continuous processes for steeping, germinating or drying

Definition statement

This subclass/group covers:

Methods or apparatus for the semi-continuous or continuous steeping, germination and/or drying of brewing grains.

References relevant to classification in this group

This subclass/group does not cover:

Batch mode steeping, germination and/or drying of brewing grains	C12C 1/02 , C12C 1/027 , C12C 1/067
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Special rules of classification within this group

This symbol should be given if (semi-) continuous steeping, germination and/or drying is specifically emphasised and/or claimed.

C12C 1/13

with vertical transport of the grains

Definition statement

This subclass/group covers:

Methods or apparatus for the semi-continuous or continuous steeping, germination and/or drying of brewing grains, wherein the grains are transported vertically.

C12C 1/135

with horizontal transport of the grains

Definition statement

This subclass/group covers:

Methods or apparatus for the semi-continuous or continuous steeping, germination and/or drying of brewing grains, wherein the grains are transported horizontally.

C12C 1/15

Grain or malt turning, charging or discharging apparatus

Definition statement

This subclass/group covers:

Apparatus for turning, charging and/or discharging brewing grain or malt.

C12C 1/16

After-treatment of malt, e.g. malt cleaning, detachment of the germ

Definition statement

This subclass/group covers:

Methods or apparatus for the after-treatment of malt, e.g. malt cleaning or detachment of the germ.

C12C 1/18

Preparation of malt extract or of special kinds of malt, e.g. caramel, black malt (malt products for use as foodstuffs A23L)

Definition statement

This subclass/group covers:

Preparation of malt extract or of special kinds of malt, e.g. caramel malt, black malt.

References relevant to classification in this group

This subclass/group does not cover:

Malt products for use as foodstuffs	A23L 1/185
Preparation of wort	C12C 7/00

C12C 3/00

Treatment of hops

Definition statement

This subclass/group covers:

Apparatus and methods adapted for the treatment of hops used in brewing beer.

References relevant to classification in this group

This subclass/group does not cover:

Boiling of wort (beerwort) with hops	C12C 7/205
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C12C 3/02

Drying

Definition statement

This subclass/group covers:

Apparatus and methods adapted for drying hops used in brewing beer.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Processes for drying	F26B 3/00
Apparatus for drying	F26B 9/00

C12C 3/04

Conserving; Storing; Packing

Definition statement

This subclass/group covers:

Apparatus or methods adapted for conserving, storing and/or packaging hops used in brewing beer.

References relevant to classification in this group

This subclass/group does not cover:

Preservation of foods	A23L 3/00
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C12C 3/06

Powder or pellets from hops

Definition statement

This subclass/group covers:

Apparatus or methods adapted for the preparation of hop powder or hop pellets.

C12C 3/08

Solvent extracts from hops

Definition statement

This subclass/group covers:

Methods or apparatus for the preparation of solvent extracts from hops.

References relevant to classification in this group

This subclass/group does not cover:

Boiling of wort (beerwort) with hops	C12C 7/205
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C12C 3/085

[N: Extraction of hops with beerwort]

Definition statement

This subclass/group covers:

Methods or apparatus for the solvent extraction of hops with beerwort.

References relevant to classification in this group

This subclass/group does not cover:

Boiling of wort (beerwort) with hops	C12C 7/205
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C12C 3/10

using carbon dioxide

Definition statement

This subclass/group covers:

Methods or apparatus for the solvent extraction of hops using carbon dioxide.

C12C 3/12

Isomerised products from hops

Definition statement

This subclass/group covers:

Methods or apparatus for preparing isomerised products from hops used in beer brewing.

C12C 5/00

Other raw materials for the preparation of beer

Definition statement

This subclass/group covers:

Raw materials or ingredients other than malt (or grains) and hops for the preparation of beer.

References relevant to classification in this group

This subclass/group does not cover:

Malt	C12C 1/00
Hops	C12C 3/00

C12C 5/002

[N: Brewing water]

Definition statement

This subclass/group covers:

Brewing water used as ingredient for preparing beer.

C12C 5/004

[N: Enzymes]

Definition statement

This subclass/group covers:

Enzymes used as raw material (or as ingredient) in the preparation of beer.

References relevant to classification in this group

This subclass/group does not cover:

The use of malt extract or special malt products as enzyme source	C12C 1/18
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C12C 5/006

[N: Beta-glucanase or functionally equivalent enzymes]

Definition statement

This subclass/group covers:

Beta-glucanase or functionally equivalent enzymes used as raw material or as ingredient in the preparation of beer.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Functionally equivalent	Beta-glucanase is usually added to avoid "gushing", i.e. undesired excessive foaming of beer. Enzymes other than Beta-glucanase used to give the same effect are considered as functionally equivalent.
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C12C 5/008

[N: Hop surrogates]

Definition statement

This subclass/group covers:

Use of hop surrogates as raw material or ingredient in the preparation of beer.

References relevant to classification in this group

This subclass/group does not cover:

Hops, i.e. the standard hopping ingredient	C12C 3/00
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Hop surrogates	Materials used for obtaining the same or similar effects usually provided by hop, in particular flavouring.
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C12C 5/02

Additives for beer

Definition statement

This subclass/group covers:

Additives for beer.

References relevant to classification in this group

This subclass/group does not cover:

Preserving agents for beer	C12H 1/14
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Special rules of classification within this group

This group is considered as relating to the addition of additives to finished beer only.

C12C 5/023

[N: enhancing the vitamin content]

Definition statement

This subclass/group covers:

Beer additives used for enhancing the vitamin content.

References relevant to classification in this group

This subclass/group does not cover:

Adding vitamins to foods	A23L 1/302
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Special rules of classification within this group

This group covers also any vitamin containing material in so far as the purpose of its addition is indicated to be vitamin enrichment of beer.

This group is considered as relating to the addition of (vitamin containing) additives to finished beer only.

C12C 5/026

[N: Beer flavouring preparations]

Definition statement

This subclass/group covers:

Beer additives used for flavouring purposes.

References relevant to classification in this group

This subclass/group does not cover:

Flavouring additives for non-alcoholic beverages	A23L 2/56
Hops	C12C 3/00
Hop surrogates	C12C 5/008

Special rules of classification within this group

This group is considered as relating to the addition of flavouring additives to finished beer only.

C12C 5/04

Colouring additives

Definition statement

This subclass/group covers:

Beer additives used for colouring purposes.

References relevant to classification in this group

This subclass/group does not cover:

Black malt or other colouring malts	C12C 1/18
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Special rules of classification within this group

This group is considered as relating to the addition of colouring additives to finished beer only.

C12C 7/00

Preparation of wort (malt extract C12C1/18)

Definition statement

This subclass/group covers:

Methods or apparatus for preparing wort in a beer brewing process.

Methods or apparatus for preparing wort in processes other than beer brewing, e.g. production of industrial alcohol from cereals, in so far as significant similarities with the usual beer brewing methods or apparatus and/or no classes that are more relevant exist.

Relationship between large subject matter areas

Wort preparation is also common in the industrial / non-beverage preparation of alcohol and is covered by [C12P 7/06](#).

References relevant to classification in this group

This subclass/group does not cover:

Malt extract	C12C 1/18
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Special rules of classification within this group

Until further notice, wort preparation in processes other than beer brewing is also covered, in so far as it is considered that significant similarities with the usual beer brewing methods or apparatus and/or no better classes for covering the subject-matter exist.

Synonyms and Keywords

In patent documents the expression/word " Wort " is often used with the meaning " beerwort ".

C12C 7/01

Pretreatment of malt, e.g. malt grinding

Definition statement

This subclass/group covers:

Methods or apparatus for pre-treating malt, e.g. malt grinding used for preparing wort in a beer brewing process.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preparation of grain for milling in general	B02B
Milling grain in general	B02C

C12C 7/04

Preparation or treatment of the mash

Definition statement

This subclass/group covers:

Methods or apparatus for preparing or treating mash in a beer brewing process.

Relationship between large subject matter areas

Mash preparation is also common in the industrial / non-beverage preparation of alcohol and is covered by [C12P 7/06](#).

Special rules of classification within this group

Until further notice, mash preparation in processes other than beer brewing is also covered, in so far as it is considered that significant similarities with the usual beer brewing methods or apparatus and/or no better classes for covering the subject-matter exist.

C12C 7/042

[N: Mixing malt with water]

Definition statement

This subclass/group covers:

Methods or apparatus for mixing malt with water in the preparation of mash for beer brewing.

References relevant to classification in this group

This subclass/group does not cover:

Steeping brewing grains	C12C 1/02
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C12C 7/044

[N: Cooling the mash (C12C7/067 takes precedence)]

Definition statement

This subclass/group covers:

Methods for cooling the mash in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Apparatus, with cooling means for cooling the mash in a beer brewing process, per se	C12C 7/067
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C12C 7/047

part of the mash being unmalted cereal mash

Definition statement

This subclass/group covers:

Methods for preparing or treating mash in a beer brewing process, wherein at least part of the mash is derived from unmalted cereal material.

References relevant to classification in this group

This subclass/group does not cover:

Use of non-cereal material	C12C 7/053
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C12C 7/053

part of the mash being non-cereal material

Definition statement

This subclass/group covers:

Methods for preparing or treating mash in a beer brewing process, wherein at least part of the mash is derived from non-cereal material.

References relevant to classification in this group

This subclass/group does not cover:

Use of unmalted cereal material	C12C 7/047
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C12C 7/06

Mashing apparatus

Definition statement

This subclass/group covers:

Mashing apparatus adapted for preparing and/or treating the mash in a beer brewing process.

Until further notice, mashing apparatus adapted for processes other than beer brewing is also covered, in so far as it is considered that significant similarities with the apparatus typically used in beer brewing and/or no better classes for covering the subject-matter exist.

Relationship between large subject matter areas

Mashing apparatus are also commonly used in the industrial / non-beverage preparation of alcohol ind is covered by [C12P 7/06](#).

C12C 7/062

[N: with a horizontal stirrer shaft]

Definition statement

This subclass/group covers:

Mashing apparatus with a horizontal stirrer shaft, adapted for preparing and/or treating the mash in a beer brewing process.

C12C 7/065

[N: with a vertical stirrer shaft]

Definition statement

This subclass/group covers:

Mashing apparatus with a vertical stirrer shaft, adapted for preparing and/or treating the mash in a beer brewing process.

C12C 7/067

[N: with cooling means]

Definition statement

This subclass/group covers:

Mashing apparatus with cooling means, adapted for preparing and/or treating the mash in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Methods for cooling the mash in a beer brewing process	C12C 7/044
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C12C 7/14

Clarifying wort (Läuterung)

Definition statement

This subclass/group covers:

Methods or apparatus for converting mash into wort by clarification, which relate to a beer brewing process (typically Läuterung, i.e. "lautering").

C12C 7/16

by straining

Definition statement

This subclass/group covers:

Methods or apparatus for converting mash into wort by straining, which relate to a beer brewing process.

Synonyms and Keywords

In patent documents the expression/word " Straining " is often used with the meaning " filtering ".

C12C 7/161

[N: in a tub with a perforated false bottom]

Definition statement

This subclass/group covers:

Note: This group no longer used, see corresponding group [C12C 7/17](#).

C12C 7/163

[N: with transport of the mash by or relative to a filtering surface]

Definition statement

This subclass/group covers:

Methods or apparatus for converting mash into wort by straining, relating to a beer brewing process, with transport of the mash by or relative to a filtering surface.

C12C 7/165

in mash filters

Definition statement

This subclass/group covers:

Methods or apparatus for converting mash into wort by straining in mash filters, relating to a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Straining in lauter tuns	C12C 7/17
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C12C 7/17

in lautertuns, [N: e.g. in a tub with perforated false bottom]

Definition statement

This subclass/group covers:

Methods or apparatus for converting mash into wort by straining in a lauter tun, relating to a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Straining in mash filters	C12C 7/165
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Lauter tun	Tub or vessel having a false / perforated bottom for straining / filtering
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C12C 7/175

by centrifuging

Definition statement

This subclass/group covers:

Methods or apparatus for converting mash into wort by centrifuging, relating to a beer brewing process.

C12C 7/20

Boiling the beerwort (brew kettles C12C13/02)

Definition statement

This subclass/group covers:

Methods or apparatus for boiling the wort in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Brewing kettles used for boiling wort	C12C 13/02
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C12C 7/205

[N: Boiling with hops]

Definition statement

This subclass/group covers:

Methods or apparatus for boiling the wort with hops in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Brewing kettles used for boiling wort	C12C 13/02
Hop extraction with wort	C12C 3/085

C12C 7/22

Processes or apparatus specially adapted to save or recover energy

Definition statement

This subclass/group covers:

Methods or apparatus for boiling the wort with hops in a beer brewing process, which are adapted to save or recover energy.

References relevant to classification in this group

This subclass/group does not cover:

Brewing kettles used for boiling wort in general	C12C 13/02
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Special rules of classification within this group

This group should be used only if saving and/or recovering energy is specifically emphasised and/or claimed.

C12C 7/24

Clarifying beerwort between hop boiling and cooling

Definition statement

This subclass/group covers:

Apparatus and methods for clarifying wort between hop boiling and cooling, relating to a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Clarification of wort during or after cooling; Cooling as such	C12C 7/26
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Special rules of classification within this group

If the specific stage of clarification (i.e. before, during or after boiling) is not indicated, [C12C 7/24](#) (rather than [C12C 7/26](#)) is allocated.

This rule is based on the consideration (or assumption) that the standard brewing procedure involves clarifying prior to cooling.

C12C 7/26

Cooling beerwort; Clarifying beerwort during or after the cooling

Definition statement

This subclass/group covers:

Apparatus or methods for cooling wort and/or for clarifying wort during or after the cooling, relating to a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Clarifying before cooling	C12C 7/24
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Special rules of classification within this group

If the specific stage of clarification (i.e. before, during or after boiling) is not indicated, [C12C 7/24](#) (rather than [C12C 7/26](#)) is allocated.

This rule is based on the consideration (or assumption) that the standard brewing procedure involves clarifying prior to cooling.

C12C 7/28

After-treatment, [N: e.g. sterilisation (C12C11/00 takes precedence)]

Definition statement

This subclass/group covers:

Methods or apparatus for after-treatment of wort in a beer brewing process (e.g. sterilisation).

References relevant to classification in this group

This subclass/group does not cover:

Fermentation of wort	C12C 11/00
Acidifying the wort	C12C 11/06

Special rules of classification within this group

Until further notice, "after-treatment" is considered as covering the stages between wort boiling and fermentation. In case of doubt, "after treatment of wort " should be given a broad scope and considered as covering various types of treatment. When a certain treatment qualifies specifically as after-treatment of wort, the symbol should be given.

C12C 7/282

[N: Concentration of beerwort]

Definition statement

This subclass/group covers:

Methods or apparatus for the concentration of wort in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Drying of wort	C12C 7/285
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C12C 7/285

[N: Drying beerwort]

Definition statement

This subclass/group covers:

Methods or apparatus for drying wort in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Concentration of wort	C12C 7/282
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C12C 7/287

[N: Treating beerwort with hopextract (C12C7/205 takes precedence)]

Definition statement

This subclass/group covers:

Methods or apparatus for treating wort with hop extract, as after-treatment of wort in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Boiling wort with hops	C12C 7/205
Extraction of hops with beerwort	C12C 3/085

C12C 9/00

[N: IPC5] Methods specially adapted for the making of beerwort

Definition statement

This subclass/group covers:

Note: This group is no longer used, see warning in header.

C12C 9/02

Beerwort treatment; Boiling with hops; Hop extraction

Definition statement

This subclass/group covers:

Note: This group is no longer used, see warning in header.

C12C 9/025

[N: Preparation of hop extracts (extraction with beerwort C12C9/02); Isomerisation of these extracts; Treatment of beerwort with these extracts; Surrogates of the hop]

Definition statement

This subclass/group covers:

Note: This group is no longer used, see warning in header.

C12C 11/00

Fermentation processes for beer (preparation of wine C12G1/00)

Definition statement

This subclass/group covers:

Methods or apparatus for fermentation in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Preparation of wine	C12G 1/00
Preparation of alcoholic beverages other than beer and wine	C12G 3/00

Non-beverage alcoholic fermentation	C12P 7/06
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermentation apparatus in general	C12M
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C12C 11/003

[N: Fermentation of beerwort]

Definition statement

This subclass/group covers:

Methods or apparatus adapted for the fermentation of wort in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Continuous fermentation	C12C 11/07
Preparation of wine	C12G 1/00
Preparation of alcoholic beverages other than beer and wine	C12G 3/00
Non-beverage alcoholic fermentation	C12P 7/06

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermentation apparatus in general	C12M
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C12C 11/006

[N: Fermentation tanks therefor]

Definition statement

This subclass/group covers:

Fermentation tanks adapted for the fermentation of wort in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Bioreactors, i.e. fermentation tanks for continuous fermentation	C12C 11/075
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermentation apparatus in general	C12M
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C12C 11/02

Pitching yeast

Definition statement

This subclass/group covers:

Methods for pitching yeast for the fermentation of wort in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Propagating yeast	C12N 1/16
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Pitching and depitching machines	C12L 3/00
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Pitching	Seeding yeast to initiate/allow fermentation
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C12C 11/06

Acidifying the wort

Definition statement

This subclass/group covers:

Methods or apparatus adapted for acidifying the wort to be fermented in a beer brewing process.

C12C 11/07

Continuous fermentation

Definition statement

This subclass/group covers:

Methods or apparatus adapted for continuous fermentation in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Fermentation of beerwort in general (in particular discontinuous)	C12C 11/003
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermentation apparatus in general	C12M
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Special rules of classification within this group

This group is pertinent if the aspect of continuous fermentation is specifically emphasised and/or claimed.

This group takes precedence over [C12C 11/003](#).

C12C 11/075

[N: Bioreactors for continuous fermentation]

Definition statement

This subclass/group covers:

Bioreactors adapted for continuous fermentation in a beer brewing process.

References relevant to classification in this group

This subclass/group does not cover:

Fermentation tanks in general (in particular for discontinuous fermentation)	C12C 11/006
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermentation apparatus in general	C12M
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Special rules of classification within this group

This group is pertinent if the aspect of continuous fermentation is specifically emphasised and/or claimed.

C12C 11/09

Fermentation with immobilised yeast

Definition statement

This subclass/group covers:

Methods or apparatus adapted for fermentation in a beer brewing process, wherein immobilised yeast is used.

References relevant to classification in this group

This subclass/group does not cover:

Continuous fermentation	C12C 11/07
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fermentation apparatus in general	C12M
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C12C 11/11

Post fermentation treatments, e.g. carbonation, concentration (C12H takes precedence; containers with means specially adapted for effervescing potable liquids B65D85/73)

Definition statement

This subclass/group covers:

Methods or apparatus adapted for post fermentation treatment of fermented wort (i.e. beer), such as carbonation or concentration.

References relevant to classification in this group

This subclass/group does not cover:

Pasteurisation, sterilisation, preservation, purification, clarification, ageing of finished alcoholic beverages, e.g. beer	C12H
Containers with means specially adapted for effervescing potable liquids	B65D 85/73
After-treatment of unfermented wort	C12C 7/28

C12C 12/00

Processes specially adapted for making special kinds of beer

Definition statement

This subclass/group covers:

Methods or apparatus specially adapted for making special kinds of beer.

References relevant to classification in this group

This subclass/group does not cover:

Preparation of special malt products	C12C 1/18
Use of hop surrogates	C12C 5/008
Beer flavouring preparations	C12C 5/026

Special rules of classification within this group

The designation of beer as "special" inevitably involves some degree of subjectivity. This group should only be given for beer which significantly differs from standard beer and/or is emphasised/claimed as having specific particular qualities.

C12C 12/002

[N: using special micro-organisms]

Definition statement

This subclass/group covers:

Methods or apparatus specially adapted for making special kinds of beer using special micro-organisms, i.e. any non-standard micro-organism which does not fall within the subgroups [C12C 12/004](#), [C12C 12/006](#) and [C12C 12/008](#), e.g. moulds such as (non-GMO) Aspergillus strains, strains of bacteria such as Acetobacter that are non-GMO and which do not belong to lactic acid bacteria

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preparation of alcoholic beverages other than beer and wine	C12G 3/02
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C12C 12/004

[N: Genetically modified micro-organisms]

Definition statement

This subclass/group covers:

Methods or apparatus specially adapted for making special kinds of beer using genetically modified (e.g. recombinant) micro-organisms, e.g. genetically modified microbes

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preparation of alcoholic beverages other than beer and wine	C12G 3/02
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Special rules of classification within this group

The specific method for genetic modification is not relevant, a broad interpretation should be given.

C12C 12/006

[N: Yeasts (processes for seeding C12C11/02)]

Definition statement

This subclass/group covers:

Methods or apparatus specially adapted for making special kinds of beer using special yeasts, i.e. not standard or pitching yeast, e.g. yeast having magnetic particles adsorbed onto the cell surface, yeast attenuated by UV radiation, yeast isolated from soil of a volcanic area, genetically modified yeast, yeast with increased enzyme activity such as to produce a high amount of volatile flavour compounds

References relevant to classification in this group

This subclass/group does not cover:

Fermentation using standard yeast	C12C 11/00
Fermentation using pitching yeast	C12C 11/02

Informative references

Attention is drawn to the following places, which may be of interest for search:

Preparation of alcoholic beverages other than beer and wine	C12G 3/02
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Special rules of classification within this group

This symbol should be given if the character of the yeast used for fermentation is emphasised or claimed as being special.

C12C 12/008

[N: Lactic acid bacteria]

Definition statement

This subclass/group covers:

Methods or apparatus specially adapted for making special kinds of beer using lactic acid bacteria.

C12C 12/02

Beer with low calorie content (C12C12/04 takes precedence)

Definition statement

This subclass/group covers:

Methods or apparatus adapted for preparing beer with low calorie content.

References relevant to classification in this group

This subclass/group does not cover:

Preparation of beer with low alcohol content	C12C 12/04
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C12C 12/04

Beer with low alcohol content [N: (removal of alcohol after fermentation C12G3/08)]

Definition statement

This subclass/group covers:

Methods or apparatus adapted for preparing beer with low alcohol content.

References relevant to classification in this group

This subclass/group does not cover:

Non-alcoholic beverages	A23L 2/00
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Preparation of low alcoholic beverages other than wine and beer by fermentation	C12G 3/025
Reducing the alcohol content of alcoholic beverages other than wine and beer prepared by fermentation	C12G 3/08

C12C 13/00

Brewing devices, not covered by a single group of C12C1/00 to C12C12/04

Definition statement

This subclass/group covers:

Apparatus or devices for beer brewing, the classification of which is not completely covered by a single group of [C12C 1/00](#) to [C12C 12/04](#).

C12C 13/02

Brew kettles [N: (C12C11/075 takes precedence)]

Definition statement

This subclass/group covers:

Brew kettles for use in beer brewing.

References relevant to classification in this group

This subclass/group does not cover:

Apparatus adapted for saving or recovering energy during the boiling of wort with hops	C12C 7/22
Fermentation tanks for fermenting wort	C12C 11/006
Bioreactors for continuous wort fermentation	C12C 11/075

C12C 13/025

[N: heated with steam]

Definition statement

This subclass/group covers:

Brew kettles for use in beer brewing which are heated with steam.

C12C 13/06

heated with fire

Definition statement

This subclass/group covers:

Brew kettles for use in beer brewing which are heated with fire.

Note: This technology is no longer in use, mainly very old documents are classified in this group.

C12C 13/08

with internal heating elements

Definition statement

This subclass/group covers:

Brew kettles for use in beer brewing comprising internal heating elements.

C12C 13/10

Home brew equipment

Definition statement

This subclass/group covers:

Equipment for brewing beer on a domestic (or small) scale. Microbrewing equipment.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Home brewing, Micro brewing	Brewing beer on a small scale, e.g. at home or in restaurants or pubs.
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