## **F24C**

# DOMESTIC STOVES OR RANGES (exclusively for solid fuels F24B); DETAILS OF DOMESTIC STOVES OR RANGES, OF GENERAL APPLICATION

# **Definition statement**

This place covers:

Domestic stoves or ranges in which the fuel is not restricted to solid fuel, e.g. gaseous fuels, liquid fuels or electricity is used.

Details for such stoves or ranges.

Cooktops.

Devices for removing cooking fumes, e.g. extractor hoods.

Baking ovens with convection heat.

# Relationships with other classification places

While <u>F24C</u> covers domestic stoves for non-solid fuels, stoves or ranges exclusively for use with solid fuels are classified in F24B.

#### References

## Limiting references

This place does not cover:

Domestic stoves or ranges exclusively for solid fuels	<u>F24B</u>

## Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Protecting plants by heating in gardens, orchards or forests	A01G 13/06
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#### Informative references

Bakers' ovens; machines or equipment for baking	<u>A21B</u>
Kitchen cabinets	A47B 77/00
Cooking devices other than ranges	<u>A47J</u>
Washing or rinsing machines for crockery or tableware	A47L 15/00
Laundering, drying, ironing, pressing or folding textile articles	<u>D06F</u>
Combustion apparatus in general	<u>F23</u>
Domestic or space heating systems, e.g. central heating systems; Domestic hot-water supply systems	F24D
Fluid heaters, e.g. water or air heaters, having heat generating means	<u>F24H</u>
Refrigerators	<u>F25D</u>
Cooking devices using induction heating	H05B 6/12

Heating using microwaves	H05B 6/64

#### **Glossary of terms**

In this place, the following terms or expressions are used with the meaning indicated:

Stove	appliance used for generating heat	
Range, kitchen stove, cooking stove, cookstove or cooker	kitchen appliance designed to cook food. Such a device has both burners on the top (also known in American English as the cooktop and, in British English, the hob) and, often, an oven	
Cooktop	has burners on the top and is usually installed into a countertop	
Drop-in range	has both burners on the top and an oven and hangs from a cutout in the countertop (that is, it cannot be installed free-standing on its own)	

## F24C 1/00

Stoves or ranges in which the fuel or energy supply is not restricted to solid fuel or to a type covered by a single one of the following groups F24C 3/00 - F24C 9/00; Stoves or ranges in which the type of fuel or energy supply is not specified

### **Definition statement**

This place covers:

Stoves or ranges which are adapted for the use of two or more kinds of fuel or energy supply.

Stoves or ranges solely adapted for radiation heating.

# F24C 3/00

Stoves or ranges for gaseous fuels (stoves or ranges specially adapted for the use of two or more kinds of fuel or energy supply F24C 1/02)

#### **Definition statement**

This place covers:

Stoves or ranges comprising a gas burner.

Details of such stoves or ranges, e.g. the arrangement or mounting of the burners, the arrangement or mounting of ignition devices and control or safety devices used on these devices.

## References

### Limiting references

This place does not cover:

Stoves or ranges specially adapted for the use of two or more kinds of	F24C 1/02
fuel or energy supply	

#### Informative references

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

Control valves	<u>F16K</u>
Premix gas burners with radial outlets at the burning head	F23D 14/06
Regulating or controlling combustion	<u>F23N</u>
Ignition	<u>F23Q</u>

# F24C 3/08

# **Arrangement or mounting of burners**

#### References

## Informative references

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

Burners in general	<u>F23D</u>
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# F24C 3/10

# Arrangement or mounting of ignition devices

## References

#### Informative references

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

Ignition devices in general	<u>F23Q</u>
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# F24C 3/12

# Arrangement or mounting of control or safety devices

## References

## Informative references

Control valves in general	<u>F16K</u>
Safety devices for burners in general	<u>F23D</u>
Regulating or controlling combustion in general	<u>F23N</u>

## F24C 5/00

Stoves or ranges for liquid fuels (stoves or ranges specially adapted for the use of two or more kinds of fuel or energy supply F24C 1/02)

#### **Definition statement**

This place covers:

Stoves and ranges using liquid fuel.

Details of such stoves or ranges, e.g. the arrangement or mounting of the burners, the arrangement or mounting of ignition devices and control or safety devices used on these devices.

Liquid-fuel supply arrangements.

#### References

### Limiting references

This place does not cover:

Stoves or ranges specially adapted for the use of two or more kinds of	F24C 1/02
fuel or energy supply	

#### Informative references

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

Burners for combustion of a liquid	<u>F23D</u>
Feeding fuel to combustion apparatus	<u>F23K</u>
Regulating or controlling combustion	<u>F23N</u>
Ignition	<u>F23Q</u>

# F24C 5/12

# **Arrangement or mounting of burners**

#### References

#### Informative references

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

Burners in general F23D
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# F24C 5/14

# Arrangement or mounting of ignition devices

## References

## Informative references

Ignition devices in general	IE23O
Ignition devices in general	<u>1 20Q</u>

## F24C 5/16

# Arrangement or mounting of control or safety devices

## References

#### Informative references

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

Safety devices for burners in general	<u>F23D</u>
Regulating or controlling combustion in general	<u>F23N</u>
Control valves in general	<u>F23Q</u>

# F24C 5/18

# Liquid-fuel supply arrangements forming parts of stoves or ranges

#### References

#### Informative references

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

Feeding liquid fuel to combustion apparatus in general	F23K 5/02
resum ginda residente compassion apparatas in general	<u> </u>

# F24C 7/00

Stoves or ranges heated by electric energy (stoves or ranges specially adapted for the use of two or more kinds of fuel or energy supply F24C 1/02)

## **Definition statement**

This place covers:

Stoves and ranges using electrical energy.

Details of such stoves or ranges, e.g. the arrangement or mounting of the heating elements, the arrangement or mounting of control or safety devices used on these devices.

# References

## Limiting references

This place does not cover:

Stoves or ranges specially adapted for the use of two or more kinds of	F24C 1/02
fuel or energy supply	

## Informative references

Electric heating elements or arrangements	<u>H05B</u>
Cooking devices using induction heating	H05B 6/12
Heating using microwaves	H05B 6/64

# F24C 7/004

# {simulating flames}

# Relationships with other classification places

Simulated fireplaces using solid fuel are classified in F24B 1/1808.

#### References

#### Informative references

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

Artificial stove with gaseous fuel	F24C 3/006
Lighting devices or systems simulating flames	F21S 10/04

# F24C 7/02

# using microwaves

## References

#### Informative references

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

Heating using microwaves	H05B 6/64
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# Special rules of classification

As expressed by the informative reference above, details of stoves using microwaves are classified in CPC in  $\underline{\text{H05B 6/64}}$ , and not in  $\underline{\text{F24C 7/02}}$ .

## F24C 7/08

# Arrangement or mounting of control or safety devices

#### References

## Informative references

Measuring temperature; measuring quantity of heat; thermally-sensitive elements not otherwise provided for	<u>G01K</u>
Controlling members, e.g. knobs or handles;	G05G 1/00
Switches	<u>H01H</u>
Touch switches	H03K 17/96
Circuit arrangements for electric heating	H05B 1/02

## F24C 9/00

Stoves or ranges heated by a single type of energy supply not covered by groups F24C 3/00 - F24C 7/00 or subclass F24B (solar heat collectors for heating objects, e.g. solar cookers F24S 20/30)

#### **Definition statement**

This place covers:

Stoves and ranges using a single type of energy supply not covered by groups  $\underline{F24C\ 3/00}$  -  $\underline{F24C\ 7/00}$  or subclass F24B.

Stoves or ranges using the heat from an exothermal reaction not involving a supply of free oxygen gas.

Stoves or ranges using special gaseous fuel, e.g. acetylene and hydrogen.

#### References

### Limiting references

This place does not cover:

Solar heat collectors for heating objects, e.g. solar cookers	F24S 20/30
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#### Informative references

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

Using the heat from exothermal reactions other than by combustion	F24V 30/00
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# F24C 11/00

# Combinations of two or more stoves or ranges, e.g. each having a different kind of energy supply

# **Definition statement**

This place covers:

Combinations of two or more stoves or ranges, e.g. each having a different kind of energy supply.

# F24C 13/00

## Stoves or ranges with additional provisions for heating water

## **Definition statement**

This place covers:

Stoves or range wherein residual heat is used for heating water.

#### References

#### Informative references

Mounting arrangements of water heaters or water-heating elements	F24H 1/00
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## F24C 14/00

# Stoves or ranges having self-cleaning provisions, e.g. continuous catalytic cleaning or electrostatic cleaning

#### **Definition statement**

This place covers:

Pyrolytic cooking ovens.

Stoves or ranges wherein a cleaning liquid is used.

#### References

## Informative references

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

Removing cooking fumes	F24C 15/20
Cleaning in general; prevention of fouling	<u>B08B</u>
Detergent compositions	<u>C11D</u>

## F24C 15/00

## **Details**

#### **Definition statement**

This place covers:

Details of stoves or ranges such as: arrangements for circulation of cooling air to avoid excessive heat in the housing or door, illumination of oven cavities, doors specially adapted for stoves or ranges, shelves or racks used in cooking ovens.

Cooking hot plate using gas or electrical energy.

Devices for removing cooking fumes, either from a cooking cavity or from a cooking area, e.g. extractor hoods.

Arrangements of ducts for hot gases in or around baking ovens, e.g. convection baking ovens.

#### References

# Informative references

Electric heating elements or arrangements	<u>H05B</u>

# F24C 15/005

# {Coatings for ovens}

#### References

#### Informative references

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

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Enamels; Glazes	C03C 8/00
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# F24C 15/008

# {Illumination for oven cavities}

## References

## Informative references

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

Means for illuminating ovens	A21B 3/10
Details of lighting of general application	<u>F21V</u>
Lighting for ovens	F21W 2131/307
Lighting devices in microwave cavity	H05B 6/6444

# F24C 15/02

# Doors specially adapted for stoves or ranges

## References

## Informative references

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

Locks; accessories therefore; handcuffs	<u>E05B</u>
Hinges or other suspension devices for doors	<u>E05D</u>
Doors in general	<u>E06B</u>
Sealing arrangements on wings or parts co-operating with the wings	E06B 7/16
Sealings	F16J 15/00
Doors for combustion chambers	F23M 7/00

## F24C 15/021

# {sealings for doors or transparent panel}

# References

#### Informative references

Sealings for wings in general	E06B 7/16

## F24C 15/022

# {Latches}

#### References

#### Informative references

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

Bolts or fastening devices for wings, specially for doors or windows	E05C
Boild of factoring devices for wings, specially for decre of windows	<u> </u>

# F24C 15/023

# {Mounting of doors, e.g. hinges, counterbalancing}

#### References

## Informative references

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

Hinges or other suspension devices for doors	<u>E05D</u>
Devices for moving doors into open or closed position	<u>E05F</u>

# F24C 15/024

# {Handles}

# References

## Informative references

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

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Locks; accessories therefore; handcuffs	IE05B
Looks, accessories tricretore, nariacans	<u> </u>

# F24C 15/10

Tops, e.g. hot plates; Rings (cover lids or splash guards <u>F24C 15/12</u>; spillage trays or grooves <u>F24C 15/14</u>)

## References

# Informative references

Devitrified glass ceramics	C03C 10/00
Surface treatment of glass, not in the form of fibres or filaments, by coating	C03C 17/00
Ohmic resistance heating arrangements specially adapted for cooking plates or analogous hot-plates	H05B 3/68
Induction cooking plates with coil cooling arrangements	H05B 6/1263

## F24C 15/16

# Shelves, racks or trays inside ovens; Supports therefor

#### **Definition statement**

This place covers:

This group covers shelves, racks and related accessories like rotisserie spits, trays and supports to be used inside ovens.

## References

#### Informative references

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

Sliding drawers for tables, cabinets or like furniture	A47B 88/40
Roasting apparatus with movably-mounted food supports or with movable heating implements; spits	A47J 37/04
Roasters; grills; sandwich grills	A47J 37/06
Racks for washing or rinsing machines for crockery or tableware	A47L 15/50
Bearings for parts moving only linearly	F16C 29/00
Shelves in refrigerators	F25D 25/02

# F24C 15/18

Arrangement of compartments additional to cooking compartments, e.g. for warming or for storing utensils or fuel containers; Arrangement of additional heating or cooking apparatus, e.g. grills

## **Definition statement**

This place covers:

Arrangement of compartments additional to cooking compartments, e.g. for warming, for storing utensils or fuel containers; Arrangements of additional heating or cooking apparatus, e.g. grills, and additional cooking arrangements on stoves.

# References

#### Informative references

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

Grills per se	<u>A47J 37/06</u>

#### F24C 15/20

Removing cooking fumes (parts, details or accessories of cooking-vessels for withdrawing or condensing cooking vapours from such vessels A47J 36/38)

### **Definition statement**

This place covers:

Devices for removing cooking fumes from cooking cavities or from cooking ranges, e.g. using an extractor hood.

## References

#### Informative references

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

Parts, detail or accessories of cooking-vessels for withdrawing or condensing cooking vapour from cooking utensils	A47J 36/38
Control of fire-fighting equipment	A62C 37/00
Separating dispersed particles from gases or vapours by gravity, inertia or centrifugal forces	B01D 45/00
Filters or filtering processes specially modified for separating dispersed particles from gases or vapours	B01D 46/00
Air-conditioning; air-humidification; ventilation	<u>F24F</u>
Microwave oven air circulation system also used as air extracting hood	H05B 6/6423

# F24C 15/30

# Arrangements for mounting stoves or ranges in particular locations

#### References

#### Informative references

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

Kitchen cabinets incorporating apparatus operated by power	A47B 77/08
Arrangements for mounting in vehicles functioning as mobile restaurants, food kiosks	B60P 3/0257
Arrangements of living accommodation in campers, caravans	B60P 3/36
Restaurant cars of railway vehicles	B61D 37/006
Galleys on ships or other waterborne vessels	B63B 29/22
Galleys in aircrafts	B64D 11/04

## F24C 15/32

# Arrangements of ducts for hot gases, e.g. in or around baking ovens

## **Definition statement**

This place covers:

Baking ovens comprising convection heating using forced circulation.

Baking ovens comprising air moisturising means, e.g. steam ovens.

# References

# Informative references

Ovens heated by media flowing there through	A21B 1/24
Air-treatment devices for ovens, e.g. regulating humidity	A21B 3/04

# F24C 15/32 (continued)

Informative references

Steam-heated kettles for domestic use	A47J 27/06
Heat-insulated warming chambers with forced air circulation	A47J 39/003
Heating using microwaves combined with convection heating and using steam	H05B 6/6479