

EUROPEAN PATENT OFFICE  
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1228

DATE: JANUARY 1, 2022

PROJECT MP0513

**The following classification changes will be effected by this Notice of Changes:**

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
<b>SCHEME:</b>		
Titles Changed:	F25B	SUBCLASS
	F25B	1/00
	F25B	3/00
	F25B	5/00
	F25B	6/00
	F25B	7/00
	F25B	9/00, 9/004, 9/006, 9/14
	F25B	11/00
	F25B	13/00
	F25B	15/00
	F25B	17/00
	F25B	19/00
	F25B	21/00, 21/02
	F25B	23/00
	F25B	25/00
	F25B	27/00, 27/002
	F25B	30/00
	F25B	31/00, 31/002, 31/006, 31/008
	F25B	37/00
	F25B	39/024
	F25B	43/003, 43/006
	F25B	49/00, 49/02, 49/022, 49/025, 49/04
	F25B	2309/06, 2309/14
	F25B	2313/00
	F25B	2321/00
Warnings Deleted:	F25B	SUBCLASS
Notes Deleted:	F25B	SUBCLASS
Guidance Headings New:	F25B	2300/00
Guidance Headings Modified:	F25B	1/00
	F25B	15/00
	F25B	19/00
<b>DEFINITIONS:</b>		
Definitions New:	F25B	9/004
	F25B	27/002
	F25B	39/024
	F25B	41/20, 41/30
Definitions Modified:	F25B	SUBCLASS

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<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
	F25B	1/00, 1/04, 1/06
	F25B	5/00
	F25B	6/00
	F25B	7/00
	F25B	9/006, 9/06, 9/08, 9/14, 9/145
	F25B	15/00, 15/10
	F25B	17/00
	F25B	21/00, 21/02
	F25B	25/00
	F25B	27/00
	F25B	30/00
	F25B	33/00
	F25B	37/00
	F25B	39/00
	F25B	40/00
	F25B	41/00
	F25B	43/00
	F25B	49/005, 49/02, 49/022, 49/025

**No other subclasses/groups are impacted by this Notice of Changes.**

**This Notice of Changes includes the following [Check the ones included]:**

1. CLASSIFICATION SCHEME CHANGES

- A. New, Modified or Deleted Group(s)
- B. New, Modified or Deleted Warning(s)
- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
- B. Modified or Deleted Definitions (Definitions Quick Fix)

3.  REVISION CONCORDANCE LIST (RCL)

4.  CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5.  CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

**SUBCLASS F25B - REFRIGERATION MACHINES, PLANTS OR SYSTEMS; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT-PUMP SYSTEMS**

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level</u> <u>Number of</u> <u>dots (e.g.</u> <u>0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be</u> <u>enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	F25B	Subclass	REFRIGERATION MACHINES, PLANTS OR SYSTEMS; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT PUMP SYSTEMS	
M	F25B1/00	0	Compression machines, plants or systems with non-reversible cycle (F25B3/00, F25B5/00, F25B6/00, F25B7/00, F25B9/00 take precedence)	
M	F25B3/00	0	Self-contained rotary compression machines, i.e. with compressor, condenser and evaporator rotating as a single unit	
M	F25B5/00	0	Compression machines, plants or systems, with several evaporator circuits, e.g. for varying refrigerating capacity (with cascade operation F25B7/00)	
M	F25B6/00	0	Compression machines, plants or systems, with several condenser circuits	
M	F25B7/00	0	Compression machines, plants or systems, with cascade operation, i.e. with two or more circuits, the heat from the condenser of one circuit being absorbed by the evaporator of the next circuit (F25B9/00 takes precedence)	
M	F25B9/00	0	Compression machines, plants or systems, in which the refrigerant is air or other gas of low boiling point	
M	F25B9/004	2	{the refrigerant being air}	
M	F25B9/006	2	{the refrigerant containing more than one component (F25B9/004 takes precedence)}	
M	F25B9/14	1	characterised by the cycle used, e.g. Stirling cycle	
M	F25B11/00	0	Compression machines, plants or systems, using turbines, e.g. gas turbines	
M	F25B13/00	0	Compression machines, plants or systems, with reversible cycle (defrosting cycles F25B47/02)	
M	F25B15/00	0	Sorption machines, plants or systems, operating continuously, e.g. absorption type	
M	F25B17/00	0	Sorption machines, plants or systems, operating intermittently, e.g. absorption or adsorption type	

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<u>Type*</u>	<u>Symbol</u>	<u>Indent Level</u> <u>Number of</u> <u>dots (e.g.</u> <u>0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be</u> <u>enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	F25B19/00	0	Machines, plants or systems, using evaporation of a refrigerant but without recovery of the vapour	
M	F25B21/00	0	Machines, plants or systems, using electric or magnetic effects	
M	F25B21/02	1	using Peltier effect; using Nernst-Ettinghausen effect	
M	F25B23/00	0	Machines, plants or systems, with a single mode of operation not covered by groups F25B1/00 - F25B21/00, e.g. using selective radiation effect	
M	F25B25/00	0	Machines, plants or systems, using a combination of modes of operation covered by two or more of the groups F25B1/00 - F25B23/00	
M	F25B27/00	0	Machines, plants or systems, using particular sources of energy (F25B30/06 takes precedence)	
M	F25B27/002	1	{using solar energy}	
M	F25B30/00	0	Heat pumps (F25B 1/00-F25B 25/00, F25B 29/00 take precedence)	
M	F25B31/00	0	Compressor arrangements	
M	F25B31/002	1	{Lubrication}	
M	F25B31/006	1	{Cooling of compressor or motor}	
M	F25B31/008	2	{by injecting a liquid}	
M	F25B37/00	0	Absorbers; Adsorbers (boiler-absorbers F25B35/00)	
M	F25B39/024	3	{with elements constructed in the shape of a hollow panel}	
M	F25B43/003	1	{Filters}	
M	F25B43/006	1	{Accumulators}	
M	F25B49/00	0	Arrangement or mounting of control or safety devices	
M	F25B49/02	1	for compression type machines, plants or systems	
M	F25B49/022	2	{Compressor control arrangements}	
M	F25B49/025	2	{Motor control arrangements}	
M	F25B49/04	1	for sorption type machines, plants or systems	
M	F25B2309/06	1	Compression machines, plants or systems characterised by the refrigerant being carbon dioxide	
M	F25B2309/14	1	Compression machines, plants or systems characterised by the cycle used	
M	F25B2313/00	0	Compression machines, plants or systems with reversible cycle not otherwise provided for	
M	F25B2321/00	0	Details of machines, plants or systems, using electric or magnetic effects	

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\*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T= existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

#### NOTES:

- \*\*No { curly brackets } are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The { curly brackets } are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types .
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

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B. New, Modified or Deleted Warning(s)

**SUBCLASS F25B - REFRIGERATION MACHINES, PLANTS OR SYSTEMS; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT-PUMP SYSTEMS**

<u>Type*</u>	<u>Location</u>	<u>Old Warning</u>	<u>New/Modified Warning</u>
D	F25B	In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.	Delete entire warning

\*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

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C. New, Modified or Deleted Note(s)

**SUBCLASS F25B - REFRIGERATION MACHINES, PLANTS OR SYSTEMS; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT-PUMP SYSTEMS**

<u>Type*</u>	<u>Location</u>	<u>Old Note</u>	<u>New/Modified Note</u>
D	F25B	<ol style="list-style-type: none"><li>1. Attention is drawn to Note (2) following the title of subclass F24F.</li><li>2. When classifying heat pump circuits or systems, groups F25B 1/00 - F25B 25/00 and F25B 29/00 take precedence over group F25B 30/00.</li></ol>	Delete entire note

\*N = new note, M = modified note, D = deleted note

NOTE: The "Location" column only requires the symbol PRIOR to the location of the note. No further directions such as "before" or "after" are required.

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D. New, Modified or Deleted Guidance Heading(s)**SUBCLASS F25B - REFRIGERATION MACHINES, PLANTS OR SYSTEMS; COMBINED HEATING AND REFRIGERATION SYSTEMS; HEAT-PUMP SYSTEMS**

<u>Type*</u>	<u>Location</u>	<u>Old Guidance Heading</u>	<u>New/Modified Guidance Heading</u>
M	F25B 1/00 - F25B 13/00	Compression machines, plant, or systems	Compression machines, plants or systems
M	F25B 15/00 - F25B 17/00	Sorption machines, plant, or systems	Sorption machines, plants or systems
M	F25B 19/00 - F25B 23/00	Machines, plant, or systems, with a single mode of operation, not covered by groups F25B 1/00 - F25B 17/00	Machines, plants or systems, with a single mode of operation, not covered by groups F25B 1/00 - F25B 17/00
N	F25B 2300/00 - F25B 2700/00		Indexing scheme associated with groups F25B 1/00 - F25B 49/00, relating to arrangements, features or devices for refrigeration machines, plants or systems, combined heating and refrigeration systems or heat-pump systems as well as solved problems, control issues and sensing of parameters therefore

\*N = new guidance heading, M =modified guidance heading, D = deleted guidance heading

## NOTES:

- The "Location" column requires the symbol AFTER the guidance heading location. No further directions such as "before" or "after" are required.
- In cases where there may be confusion as to whether a new group falls within the scope of a guidance heading, indicate the guidance heading and whether the group does or does not go with the guidance heading. This can be included in the "Location" column. For example, the guidance heading "Compounds containing carbon together with sulfur, selenium or tellurium with or without hydrogen, halogens, oxygen or nitrogen" encompasses groups C07C 301/00-395/00 only. If a new group C07C 398/00 is proposed and is included in the guidance heading scope, indicate this in the "Location" column as follows: 398/00 to be included under the guidance heading: "Compounds containing carbon together with sulfur, selenium or tellurium with or without hydrogen, halogens, oxygen or nitrogen."



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## 2. A. DEFINITIONS (New)

### F25B9/004

#### References

#### Informative references

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

Air-conditioning	F24F
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### F25B27/002

#### References

#### Informative references

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

Solar heat collectors	F24S
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### F25B39/024

#### References

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## Informative references

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

For heat exchange in general	<a href="#">F28F 3/12</a>
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## F25B41/20

### Definition statement

*This place covers:*

The configuration of valves in refrigeration circuits. For example:

- on-off valves;
- flow control valves not used as expansion means;
- fluid flow reversing valves.

### References

#### Limiting references:

*This place does not cover:*

Expansion valves	<a href="#">F25B 41/31</a>
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### Special rules of classification

Devices which are purely expansion means should be classified in group F25B 41/30.

## F25B41/30

### Definition statement

*This place covers:*

Dispositions of means in a refrigeration circuit that provides expansion for the refrigerant fluid. For example:

- capillary tubes;
- expansion valves.

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**2. A. DEFINITIONS (Modified)****F25B****Relationships with other classification places**

Delete: The Relationships with other classification places section.

**References****Informative references:**

Insert: The following new rows into the Informative references table.

Evaporation or evaporation apparatus for physical or chemical purposes, e.g. evaporation of liquids for gas phase reactions	B01B 1/005
Heat-transfer, heat-exchange or heat-storage materials, e.g. refrigerants, or materials for the production of heat or cold by chemical reactions other than by combustion	C09K 5/00
Pumps, compressors	F04
Use of heat pumps for domestic or space-heating or for domestic hot-water supply	F24D
Air-conditioning, air-humidification	F24F
Fluid heaters using heat pumps	F24H

**F25B 1/00****Definition statement**

Replace: The existing Definition statement with the updated one below:

Compression machines, plants or systems with non-reversible cycle.

**References**

Insert: New Limiting references section and table.

**Limiting references:**

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*This place does not cover:*

Self-contained rotary compression machines, i.e. with compressor, condenser, and evaporator rotating as a single unit	<a href="#">F25B 3/00</a>
Compression machines, plants or systems, with several evaporator circuits, e.g. for varying refrigerating capacity	<a href="#">F25B 5/00</a>
Compression machines, plants or systems, with several condenser circuits	<a href="#">F25B 6/00</a>
Compression machines, plants or systems, with cascade operation, i.e. with two or more circuits, the heat from the condenser of one circuit being absorbed by the evaporator of the next circuit	<a href="#">F25B 7/00</a>
Compression machines, plants or systems, in which the refrigerant is air or other gas of low boiling point	<a href="#">F25B 9/00</a>

**Special rules of classification**Delete: The Special rules of classification section.**F25B 1/04****References**Insert: New Limiting references section and table.**Limiting references***This place does not cover:*

Of the single unit type	<a href="#">F25B1/005</a>
With multi-stage compression	<a href="#">F25B 1/10</a>

**Special rules of classification**Delete: The Special rules of classification section.**F25B1/06****References****Limiting references**

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Replace: The existing Limiting references table with the modified one below:

Of the single unit type	<a href="#">F25B1/005</a>
With multi-stage compression	<a href="#">F25B1/10</a>

### **Informative references**

Insert: New Informative references section and table.

Fluid-circulation arrangements	<a href="#">F25B 41/00</a>
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Delete: The Special rules of classification section.

**[F25B5/00](#)**

### **References**

### **Limiting references**

Delete: The following row from the Limiting references table.

Compression machines, plant, or systems with reversible cycle	<a href="#">F25B 13/00</a>
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### **Informative references**

Insert: The following new row in the Informative references table:

Compression machines, plants or systems with reversible cycle	<a href="#">F25B 13/00</a>
---	----------------------------

### **Special rules of classification**

Replace: The existing Special rules of classification text with the updated text below:

The refrigerant flow determines if the evaporators are in series or in parallel, not the air flow.

[F25B 5/00](#) classification of documents having parallel and series evaporators combined in one embodiment.

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[F25B 5/02](#) classification of documents having only evaporators in parallel in one document.

[F25B 5/04](#) classification of documents having only evaporators in series in one document.

Documents combining embodiments with only evaporators in parallel with embodiments with only evaporators in series should be classified in [F25B 5/02](#) inventive information and [F25B 5/04](#) additional information or [F25B 5/04](#) inventive information and [F25B 5/02](#) additional information.

Evaporators exchanging heat at different pressure levels are additionally classified in [F25B 1/10](#) additional information

## **F25B6/00**

### **References:**

Delete: The Limiting references section and table.

### **Informative references**

Insert: New Informative references section and table.

Compression machines, plants or systems with reversible cycle	<a href="#">F25B 13/00</a>
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### **Special rules of classification**

Replace: The existing Special rules of classification text with the updated text below:

The refrigerant flow determines if the condensers are in series or in parallel, not the air flow.

[F25B 6/00](#) classification of documents having parallel and series condensers combined in one embodiment.

[F25B 6/02](#) classification of documents having only condensers in parallel in one document.

[F25B 6/04](#) classification of documents having only condensers in series in one document.

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Documents combining embodiments with only condensers in parallel with embodiments with only condensers in series should be classified in [F25B 6/02](#) inventive information and [F25B 6/04](#) additional information or [F25B 6/04](#) inventive information and [F25B 6/02](#) additional information.

**F25B7/00****References****Limiting references**

Replace: The existing Limiting references table with the updated one below:

Compression machines, plants or systems, in which the refrigerant is air or other gas of low boiling point	<a href="#">F25B 9/00</a>
--	---------------------------

**Informative references**

Insert: New Informative references section and table.

Primary and secondary systems	<a href="#">F25B 25/005</a>
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Delete: The Special rules of classification section.

**F25B9/006****References****Limiting references**

Insert: New Limiting references section and table.

The refrigerant being air	<a href="#">F25B9/004</a>
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**Informative references**

Replace: The Informative references table with the updated table below.

Refrigerant materials per se	<a href="#">C09K 5/00</a>
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Special arrangements or features of compression machines, plants or systems characterised by the refrigerant being carbon dioxide	F25B 2309/06
Special arrangements or features of compression machines, plants or systems characterised by the refrigerant being carbon dioxide with the cycle highest pressure above the supercritical pressure	F25B 2309/061

### Special rules of classification

Insert: The letter “s” at the end of plant in the first sentence so the sentence reads as follows:

Special arrangements or features of compression machines, plants or systems characterised by the refrigerant being carbon dioxide are additionally classified in [F25B 2309/06](#) and [F25B 2309/061](#) when the cycle highest pressure is above the supercritical pressure.

### F25B 9/06

### References

### Limiting references

Insert: New Limiting references section and table.

With several cooling stages	F25B 9/10
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### Special rules of classification

Replace: The existing Special rules of classification text with the updated text below.

F25B 9/10 takes precedence, however in case of multi-stage expander classify also in F25B 9/06 additional information. Only gas cycle and CO2 expanders are classified in F25B 9/06, other expanders are classified in F25B 11/02 or in F25B 2400/14

### F25B 9/08

### References

### Limiting references



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Insert: New Limiting references section and table.

With several cooling stages	F25B 9/10
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**Special rules of classification**Replace: The acronym “CCA” with “additional information” so the Special rules of classification reads as below:

F25B 9/10 takes precedence, however in case of multi-stage ejector classify also in F25B 9/06 additional information.

**F25B9/14****References**Delete: The Limiting References section and table.**Informative references**Insert: The following new rows into the Informative references table.

Stirling motors	F02G 1/043
Engine plants with Vuilleumier-type cycles	F02G 1/0445

**F25B9/145****References**Delete: The Limiting references section and table.**Informative references**Insert: The following new row into the Informative references table:

Thermoacoustic engines	F03G 7/002
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**Special rules of classification**

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Replace: The word “lower” with the phrase “sub-groups thereof” so the text reads as below:

Special arrangements or features of pulse -tube cycles are additionally classified in [F25B 2309/1402](#) and sub-groups thereof.

## **F25B15/00**

### **Definition statement**

Replace: The first sentence of the Definition statement with the updated one below:

Sorption machines, plants or systems, operating continuously, e.g. absorption type.

### **References**

Delete: The Limiting references section and table.

### **Informative references**

Insert: The following new row into the Informative references section table:

Sorption machines, plants or systems, operating intermittently	<a href="#">F25B 17/00</a>
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## **F25B 15/10**

### **References**

### **Limiting references**

Insert: New Limiting references section and table.

Of rotary type	F25B 15/004
With cascade operation	F25B 15/006
With multi-stage operation	F25B 15/008
With resorber	F25B 15/12

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Using osmosis	F25B 15/14
Using desorption cycle	F25B 15/16

### Special rules of classification

Insert: A space after the word “heat-exchangers” so the Special rules of classification text reads as follows:

Special arrangements or features of inert heat-exchangers are additionally classified in F25B 2315/004.

### F25B17/00

#### Definition statement

Replace: The Definition statement with the updated one below:

Sorption machines, plants or systems with alternating periods of vaporization and condensation.

#### References

Delete: The Limiting references section and table.

#### Informative references

Insert: The following new row into the Informative references table:

Sorption machines, plants or systems, operating continuously	F25B 15/00
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### F25B 21/00

#### Definition statement

Replace: The Definition statement with the updated one below:

Machines, plants or systems, using electric or magnetic effects.

#### References

Delete: The Limiting references section and table.

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**Informative references**

Replace: The existing Informative references table with the updated one below:

Details of machines, plants or systems using electro-caloric effects	F25B 2321/001
Details of machines, plants or systems using magneto-caloric effects	F25B 2321/002
Details of machines, plants or systems using thermionic electron cooling effects	F25B 2321/003
Magnets, Selection of materials for their magnetic properties	H01F

**Special rules of classification**

Insert: A period after the symbol F25B2321/003 so the text reads as below:

Additional classification of details of machines, plants, or systems using electro-caloric effects in [F25B 2321/001](#); magneto-caloric effects in [F25B 2321/002](#); thermionic electron cooling effects in [F25B 2321/003](#).

**F25B 21/02****References**

Delete: The Limiting references section and table.

**Informative references**

Replace: The existing Informative references table with the updated one below:

Details of machines, plants or systems using Peltier effects	F25B 2321/02
Semiconductor devices	H01L
Thermoelectric elements	H01L 35/00, H01L 37/00

**F25B25/00****Definition statement**

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Replace: The existing Definition statement with the updated one below:

Machines, plants or systems, using a combination of modes of operation covered by two or more of the groups [F25B 1/00](#) - [F25B 23/00](#).

Delete: The Special rules of classification section and text.

## **F25B27/00**

### **Definition statement**

Replace: The existing Definition statement with the updated one below:

Machines, plants or systems, using particular sources of energy should be read as driven by particular sources of energy.

### **References**

#### **Limiting references**

Replace: The existing Limiting references table with the updated one below:

Heat pumps characterised by the source of low potential heat	<a href="#">F25B 30/06</a>
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#### **Informative references**

Insert: The following new row to the Informative references table:

Solar heat collectors specially adapted for particular uses or environments	<a href="#">F24S 20/00</a>
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### **Special rules of classification**

Delete: The following from the Special rules of classification:

[F25B 30/06](#) takes precedence.

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**F25B 30/00****References****Limiting references**Insert: New Limiting references section and table.

Compression machines, plants or systems with non-reversible cycle; Machines, plants or systems, using a combination of modes of operation covered by two or more of the groups	F25B 1/00 - F25B 25/00
Combined heating and refrigeration systems, e.g. operating alternately or simultaneously	F25B 29/00

**F25B33/00****References****Limiting references**Insert: New Limiting references section and table.

Boiler-absorbers	F25B 35/00
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**Informative references**Delete: The following row from the Informative references table:

Boilers, Analysers, Rectifiers	F25B 35/00
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**F25B 37/00****References****Limiting references**Insert: New Limiting references section and table.

Boiler-absorbers	F25B 35/00
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**Informative references**Replace: The existing Informative references table with the updated one below:

Separating processes involving the treatment of liquids with solid sorbents	B01D 15/00
Separation of gases or vapours by adsorption	B01D 53/02
Separation of gases or vapours by absorption	B01D 53/14
Liquid distributor absorbing units	B01D 53/18
Investigating using adsorption or absorption	G01N 30/00

**F25B39/00****References**Delete: The Limiting references section and table.**Informative references**Replace: The existing Informative references table with the updated one below:

Special arrangements or details of evaporators	F25B 2339/02
Special arrangements or details of condensers	F25B 2339/04
Heat-exchange in general	F28
Heat-exchange apparatus not provided for in another subclass, in which the heat-exchange media do not come into direct contact	F28D
Details of heat-exchange or heat-transfer apparatus of general application	F28F
Elements constructed in the shape of a hollow panel, e.g. with channels	F28F 3/12

**Special rules of classification**Replace: The text in the Special rules of classification section with the updated text below:

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Classification in [F25B 39/00](#) when both evaporator and condenser are claimed.  
When a heat exchanger, e.g. evaporator is claimed, classify in [F25B 39/00](#) inventive information and [F25B 39/02](#) additional information.

When a heat exchanger, e.g. condenser is claimed classify in [F25B 39/00](#) inventive information and [F25B 39/04](#) additional information.

Special arrangements or details of evaporators are additionally classified in [F25B 2339/02](#).

Special arrangements or details of condensers are additionally classified in [F25B 2339/04](#).

## **F25B 40/00**

### **Special rules of classification**

Replace: The existing text in the Special rules of classification section with the updated text below:

When heat-exchanger is a combination of heat-exchangers of sub-groups F25B 40/02, F25B 40/04 or F25B 40/06 classify in F25B 40/00 and, as additional information, two out of three of F25B 40/02, F25B 40/04 or F25B 40/06.

## **F25B 41/00**

### **References**

#### **Informative references**

Insert: The phrase “per se” to the “Pumps, sealings therefor” row so it reads as follows:

Pumps per se, sealings therefor	<a href="#">F04</a>
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## **F25B43/00**

### **References**

Delete: The Informative references section and table.

Insert: A new Limiting references section and table.



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**Limiting references**

*This place does not cover:*

Arrangements for separating or purifying gases or liquids in analysers or rectifiers	F25B 33/00
Subcoolers, desuperheaters or superheaters	F25B40/00

Delete: The Special rules of classification section and text.

**F25B49/005**

**References**

Insert: A new Limiting references section and table.

**Limiting references**

*This place does not cover:*

For compression type machines, plants or systems	F25B 49/02
For sorption type machines, plants or systems	F25B 49/04

Delete: The Special rules of classification section and text.

**F25B49/02**

**References**

Delete: The Limiting references section and table.

**Informative references**

Insert: The following new rows into the Informative references table:

Control of multiple evaporators	F25B 5/00
High pressure supercritical control the refrigerant being carbon dioxide	F25B 9/008
Control of expansion valve only	F25B 41/31
Defrost control	F25B 47/02, F25D 21/00

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Control of air-conditioning reheater	F24F 3/153
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**F25B49/022**

**References**

**Informative references**

Insert: The following new row into the Informative references table:

Compressor control arrangements in general	F04B
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**F25B49/025**

**References**

**Informative references**

Insert: The following new row into the Informative references table:

Motors per se	H02K
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