

EUROPEAN PATENT OFFICE  
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1694

DATE: JANUARY 1, 2025

PROJECT MP12331

**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:	F27D	SUBCLASS
	F27D	1/00, 1/0033, 1/12, 1/14, 1/16, 1/18
	F27D	3/00, 2003/0002, 3/026, 3/16
	F27D	5/00, 5/0031, 5/0062
	F27D	7/00, 7/02, 7/06
	F27D	9/00
	F27D	11/00, 11/10
	F27D	13/002
	F27D	15/0286
	F27D	25/001
	F27D	27/00
	F27D	99/0033
Warnings Deleted:	F27D	SUBCLASS
<b>DEFINITIONS:</b>		
Definitions New:	F27D	1/12
	F27D	15/0286
Definitions Modified:	F27D	SUBCLASS
	F27D	1/00, 1/0033, 2001/0046, 2001/0066, 2001/0069, 2001/0079, 2001/0083, 2001/1875
	F27D	3/00, 3/16
	F27D	5/00, 5/0031, 5/0062
	F27D	7/00
	F27D	11/00, 11/10
	F27D	13/002
	F27D	25/001
	F27D	27/00
	F27D	99/0033

**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)

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- 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 F27D - DETAILS OR ACCESSORIES OF FURNACES, KILNS, OVENS OR RETORTS, IN SO FAR AS THEY ARE OF KINDS OCCURRING IN MORE THAN ONE KIND OF FURNACE**

<b>Type*</b>	<b>Symbol</b>	<b>Indent Level Number of dots (e.g. 0, 1, 2)</b>	<b>Title “CPC only” text should normally be enclosed in {curly brackets}**</b>	<b>Transferred to#</b>
M	F27D	Subclass	DETAILS OR ACCESSORIES OF FURNACES, KILNS, OVENS OR RETORTS, IN SO FAR AS THEY ARE OF KINDS OCCURRING IN MORE THAN ONE KIND OF FURNACE	
M	F27D 1/00	0	Casings; Linings; Walls; Roofs	
M	F27D 1/0033	2	{Linings or walls comprising heat shields, e.g. heat shields}	
M	F27D 1/12	1	incorporating cooling arrangements	
M	F27D 1/14	1	Supports for linings (supports for monolithic linings F27D 1/10)	
M	F27D 1/16	1	Making or repairing linings {; Increasing the durability of linings; Breaking a way linings }	
M	F27D 1/18	1	Door frames; Doors, lids or removable covers	
M	F27D 3/00	0	Charging; Discharging; Manipulation of charge	
M	F27D 2003/0002	2	{involving positioning devices, e.g. buffers, buffer zones }	
M	F27D 3/026	2	{transport or conveyor rolls for furnaces; roller rails }	
M	F27D 3/16	1	Introducing a fluid jet or current into the charge (F27D 3/18 takes precedence)	
M	F27D 5/00	0	Supports, screens or the like for the charge within the furnace	
M	F27D 5/0031	1	{Treatment baskets for ceramic articles }	
M	F27D 5/0062	1	{Shields for the charge }	
M	F27D 7/00	0	Forming, maintaining or circulating atmospheres in heating chambers	
M	F27D 7/02	1	Supplying steam, vapour, gases or liquids	
M	F27D 7/06	1	Forming or maintaining special atmospheres or vacuum within heating chambers (supplying steam, vapour, gases or liquids F27D 7/02)	
M	F27D 9/00	0	Cooling of furnaces or of charges therein (casings, linings, walls or roofs incorporating cooling arrangements F27D 1/12)	

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M	F27D 11/00	0	Arrangement of elements for electric heating in or on furnaces	
M	F27D 11/10	2	Disposition of electrodes	
M	F27D 13/002	1	{Preheating scrap}	
M	F27D 15/0286	2	{in a vertical, e.g. annular, shaft}	
U	F27D 19/00	0	Arrangements of controlling devices	
M	F27D 25/001	1	{comprising breaking tools, e.g. hammers, drills, scrapers}	
M	F27D 27/00	0	Stirring devices for molten material (charging or discharging liquid or molten material F27D 3/14)	
M	F27D 99/0033	2	{using burners}	

\*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 finalization 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 notice(s)

**SUBCLASS F27D - DETAILS OR ACCESSORIES OF FURNACES, KILNS, OVENS OR RETORTS, IN SO FAR AS THEY ARE OF KINDS OCCURRING IN MORE THAN ONE KIND OF FURNACE**

<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning</u>
D	F27D	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.

## 2. A. DEFINITIONS (new)

F27D 1/12

### References

#### Informative references

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

Assemblies of tubular heat-exchange elements in general	<a href="#">F28F 1/00</a>
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F27D 15/0286

### References

#### Informative references

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

Cooling discharged material on a rotary hearth	<a href="#">F27D 15/0273</a>
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## 2. A. DEFINITIONS (modified)

### F27D

Replace: The existing Definition statement text with the following updated text.

#### Definition statement

*This place covers:*

Details, accessories of furnaces, kilns or ovens in general, not for specific furnaces, kilns or ovens.

Replace: The existing Relationships text with the following updated text.

#### Relationships with other classification places

The details or accessories for specific furnaces, kilns or ovens are classified in [F27B](#) subgroups

### References

Insert: The following new Informative references section.

#### Informative references

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

Combustion apparatus	<a href="#">F23</a>
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Replace: The existing Special rules text with the following updated text.

### Special rules of classification

Indexing Codes should be used as additional information or in case a CPC symbol is given and more detailed Indexing Codes are existing, these more detailed Indexing Codes should also be given.

### F27D 1/00

### References

Replace: The existing Informative references table with the following updated table.

### Informative references

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

Linings for casting-melt holding vessels	B22D 41/02
Refractory materials	C04B
Clay-wares	C04B 33/00
Shaped ceramic products characterised by their composition	C04B 35/00
Walls, e.g. partitions, for buildings	E04B 2/00
Protection of pipes or pipe fittings against corrosion or incrustation	F16L 58/00
Thermal insulation in general	F16L 59/00
Firebridges for combustion chambers	F23M 3/00
Shape of bricks or blocks used in combustion chambers	F23M 5/02



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**F27D 1/0033**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Shields protecting the charge within the furnace	<a href="#">F27D 5/0062</a>
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**F27D 2001/0046**

Delete: The entire Informative references section.

Insert: The following new Special rules section.

**Special rules of classification**

Making or repairing linings, increasing the durability of linings or breaking away linings are classified in F27D 1/16.

**F27D 2001/0066**

Delete: The entire Informative references section.

Insert: The following new Special rules section.

**Special rules of classification**

Removable part or structure with replaceable elements because of wearing is classified in F27D 2001/005.

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**F27D 2001/0069**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Linings or walls comprising heat shields, e.g. heat shields	<a href="#">F27D 1/0033</a>
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**F27D 2001/0079**

Delete: The entire Informative references section.

Insert: The following new Special rules section.

**Special rules of classification**

Assembling elements for supports for linings are classified in F27D 1/145.

**F27D 2001/0083**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Linings or walls comprising expansion joints or means to restrain expansion due to thermic flows	<a href="#">F27D 1/0023</a>
Removable covers	<a href="#">F27D 1/1808</a>
Movement of the container or support of the charge in the furnace or in the charging facilities	<a href="#">F27D 2003/0085</a>

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**F27D 2001/1875**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Partitions	<a href="#">F27D 99/007</a>
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**F27D 3/00**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Conveyors in general	<a href="#">B65G</a>
Charging of the electric steel-manufacturing furnace	<a href="#">C21C 5/527</a>
Furnaces through which the charge is moved mechanically or in which the charge moves by gravity	<a href="#">F27B 9/00</a>
Path of the charge through the furnace during treatment; Means by which the charge is moved through the furnace during treatment	<a href="#">F27B 9/14</a>

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**F27D 3/16**

**References**

Insert: The following new Limiting references section.

**Limiting references**

*This place does not cover:*

Charging particulate material using a fluid carrier	<a href="#">F27D 3/18</a>
---	---------------------------

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Injection assemblies for treating melt in ladles or runners before casting	<a href="#">B22D 1/005</a>
Devices for accelerating or decelerating flow of the materials	<a href="#">B65G 53/58</a>
Tuyeres for blast furnaces	<a href="#">C21B 7/16</a>
Bottoms or tuyeres for converters	<a href="#">C21C 5/48</a>
Burners or injectors for injecting pulverulent materials into the furnace	<a href="#">C21C 5/5217</a>
Treating molten ferrous alloy by injecting powdered material	<a href="#">C21C 7/0037</a>

**F27D 5/00**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

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Travelling or movable supports	<a href="#">F27D 3/12</a>
Setting, e.g. drying, dehydrating or firing ceramic articles	<a href="#">B28B 11/243</a>
Supports, baskets, containers or covers for heat treatment of metal articles	<a href="#">C21D 9/0025</a>
Details of grates for burning waste materials	<a href="#">F23H 17/00</a>
Elements for supporting goods to be dried	<a href="#">F26B 25/185</a>

**F27D 5/0031**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Heat treatment baskets for metallic articles	<a href="#">C21D 9/0025</a>
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**F27D 5/0062**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Heat shields for linings	<a href="#">F27D 1/0033</a>
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**F27D 7/00**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

General devices for heat treatment with forced gas circulation	<a href="#">C21D 1/767</a>
General devices for heat treatment under reduced pressure or vacuum	<a href="#">C21D 1/773</a>

**F27D 11/00**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Electric heating, per se	<a href="#">H05B</a>
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**F27D 11/10**

**References**

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**Informative references**

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

Automatic control of temperature	<a href="#">G05D 23/00</a>
Electric discharge apparatus	<a href="#">H01T</a>
Arrangements for feeding or guiding electrodes	<a href="#">H05B 7/10</a>
Automatic control of power by positioning of electrodes	<a href="#">H05B 7/144</a>

**F27D 13/002**

**References**

Insert: The following new Application-oriented references section.

**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:*

Preheating of scrap for steel production	<a href="#">C21C 5/565</a>
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Delete: The entire Informative references section.

**F27D 25/001**

Replace: The existing Definition statement text with the following updated text.

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**Definition statement**

*This place covers:*

Devices for removing incrustations, e.g. slag, metal deposits, dust, comprising breaking tools like hammers, drills, scrapers.

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Breaking away linings	F27D 1/1694
Boring machines for forming tapholes	F27D 3/1527

**F27D 27/00**

**References**

Insert: The following new Limiting references section.

**Limiting references**

*This place does not cover:*

Charging or discharging liquid or molten material	F27D 3/14
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Replace: The existing Informative references table with the following updated table.

**Informative references**

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



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Mixers in general	<a href="#">B01F 25/00 - B01F 33/00</a>
General processes of refining of metals	<a href="#">C22B 9/00</a>
Obtaining aluminium by refining	<a href="#">C22B 21/06</a>
Electrodynamic pumps	<a href="#">H02K 44/02</a>

**F27D 99/0033**

**References**

Replace: The existing Informative references table with the following updated table.

**Informative references**

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

Melting glass by combustion with oxygen	<a href="#">C03B 5/2353</a>
Manufacture of steel in electric arc furnaces equipped with burners	<a href="#">C21C 5/5217</a>
Burners in general for combustion of gas	<a href="#">F23D 14/00</a>
Burners in general for combustion conjointly or alternatively of gaseous or liquid or pulverulent fuel	<a href="#">F23D 17/00</a>