

Symbol	Typ	Titel
F	Sektion	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F27	Klasse	FURNACES; KILNS; OVENS; RETORTS (specially adapted for a purpose covered by a single other class and specifically mentioned in that class, see the class in question, e.g. bakery ovens A21B , glass melting furnaces C03B , coke or gas-making apparatus C10B , C10J , apparatus for cracking hydrocarbons C10G , blast furnaces C21B , converters for making steel C21C , furnaces for heat treatment of metal C21D; furnaces for electros slag or arc remelting of metals C22B 9/00; enamelling ovens C23D; combustion apparatus F23; electric heating H05B) [4]
F27D	Unterklasse	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 (combustion apparatus F23)
F27D 1/00	Hauptgruppe	Casings; Linings; Walls; Roofs (refractory materials C04B; firebridges for combustion chambers F23M 3/00)
F27D 1/02	1-Punkt Untergruppe	. Crowns; Roofs
F27D 1/04	1-Punkt Untergruppe	. characterised by the form of the bricks or blocks used
F27D 1/06	2-Punkt Untergruppe	. . Composite bricks or blocks
F27D 1/08	3-Punkt Untergruppe	. . . Bricks or blocks with internal reinforcement or metal backing
F27D 1/10	1-Punkt Untergruppe	. Monolithic linings; Supports therefor
F27D 1/12	1-Punkt Untergruppe	. incorporating cooling arrangements (constructions of tube assemblies in general F28)
F27D 1/14	1-Punkt Untergruppe	. Supports for linings (F27D 1/10 takes precedence)
F27D 1/16	1-Punkt Untergruppe	. Making or repairing linings
F27D 1/18	1-Punkt Untergruppe	. Door frames; Doors, lids, removable covers
F27D 3/00	Hauptgruppe	Charging; Discharging; Manipulation of charge (conveying systems characterised by their application for specified purposes not otherwise provided for B65G 49/00; moving charge through a furnace F27B 9/14)
F27D 3/02	1-Punkt Untergruppe	. Skids or tracks for heavy objects
F27D 3/04	1-Punkt Untergruppe	. Ram or pusher apparatus
F27D 3/06	1-Punkt Untergruppe	. Charging or discharging machines on travelling carriages
F27D 3/08	1-Punkt Untergruppe	. Screw feeders; Screw dischargers
F27D 3/10	1-Punkt Untergruppe	. Charging directly from hoppers or shoots
F27D 3/12	1-Punkt Untergruppe	. Travelling or movable supports or containers for the charge
F27D 3/14	1-Punkt Untergruppe	. Charging or discharging liquid or molten material
F27D 3/15	1-Punkt Untergruppe	. Tapping equipment; Equipment for removing slag
F27D 3/16	1-Punkt Untergruppe	. Introducing a fluid jet or current into the charge (F27D 3/18 takes precedence) [3]
F27D 3/18	1-Punkt Untergruppe	. Charging particulate material using a fluid carrier [3]
F27D 5/00	Hauptgruppe	Supports, screens, or the like for the charge within the furnace (travelling or movable supports F27D 3/12)
F27D 7/00	Hauptgruppe	Forming, maintaining, or circulating atmospheres in heating chambers

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F27D 7/02	1-Punkt Untergruppe	. Supplying steam, vapour, gases, or liquids
F27D 7/04	1-Punkt Untergruppe	. Circulating atmospheres by mechanical means
F27D 7/06	1-Punkt Untergruppe	. Forming or maintaining special atmospheres or vacuum within heating chambers (F27D 7/02 takes precedence)
F27D 9/00	Hauptgruppe	Cooling of furnaces or of charges therein (F27D 1/00 , F27D 3/00 take precedence)
F27D 11/00	Hauptgruppe	Arrangement of elements for electric heating in or on furnaces (electric heating per se H05B)
F27D 11/02	1-Punkt Untergruppe	. Ohmic resistance heating
F27D 11/04	2-Punkt Untergruppe	. . with direct passage of current through the material being heated
F27D 11/06	1-Punkt Untergruppe	. Induction heating, i.e. in which the material being heated, or its container or elements embodied therein, form the secondary of a transformer
F27D 11/08	1-Punkt Untergruppe	. Heating by electric discharge, e.g. arc discharge
F27D 11/10	2-Punkt Untergruppe	. . Disposition of electrodes (automatic control of temperature G05D 23/00; electric discharge apparatus H01T ; arrangements for feeding or guiding electrodes H05B 7/10; automatic control of power by positioning of electrodes H05B 7/144) [3]
F27D 11/12	1-Punkt Untergruppe	. with electromagnetic fields acting directly on the material being heated
F27D 13/00	Hauptgruppe	Apparatus for preheating charges; Arrangements for preheating charges
F27D 15/00	Hauptgruppe	Handling or treating discharged material; Supports or receiving chambers therefor
F27D 15/02	1-Punkt Untergruppe	. Cooling
F27D 17/00	Hauptgruppe	Arrangement for using waste heat (heat-exchangers per se F28); Arrangement for using, or disposing of, waste gases (removing fumes in general B08B 15/00)
F27D 19/00	Hauptgruppe	Arrangement of controlling devices
F27D 21/00	Hauptgruppe	Arrangement of monitoring devices; Arrangements of safety devices
F27D 21/02	1-Punkt Untergruppe	. Observation or illuminating devices
F27D 21/04	1-Punkt Untergruppe	. Arrangements of indicators or alarms
F27D 23/00	Hauptgruppe	Details or accessories not covered by any preceding group
F27D 23/02	1-Punkt Untergruppe	. Devices for removing incrustations
F27D 23/04	1-Punkt Untergruppe	. Stirring devices for molten material (mixing in general B01F) [3]