Symbol	Typ	Titel
F	**Sektion**	**SECTION F — 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 electroslag 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**

Symbol	Typ	Titel
		F27D 3/12)
F27D 7/00	**Hauptgruppe**	**Forming, maintaining, or circulating atmospheres in heating chambers**
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 seH05B)**
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 seF28); 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 other group of this subclass**
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]