F	Sektion	SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F23	Klasse	COMBUSTION APPARATUS; COMBUSTION PROCESSES
F23C	Unterklasse	METHODS OR APPARATUS FOR COMBUSTION USING FLUENT FUEL (burners F23D; constructional details of combustion chambers not otherwise provided for F23M; combustion chambers for generating combustion products of high pressure or high velocity F23R)
F23C 1/00	Hauptgruppe	Combustion apparatus specially adapted for combustion of two or more kinds of fuel simultaneously or alternately, at least one kind of fuel being fluent (combustion apparatus characterised by the combination of two or more combustion chambers F23C 6/00; pilot flame igniters F23Q 9/00) [1, 7, 2006.01]
F23C 1/02	1-Punkt Untergruppe	. lump and liquid fuel
F23C 1/04	1-Punkt Untergruppe	. lump and gaseous fuel
F23C 1/06	1-Punkt Untergruppe	. lump and pulverulent fuel
F23C 1/08	1-Punkt Untergruppe	. liquid and gaseous fuel
F23C 1/10	1-Punkt Untergruppe	. liquid and pulverulent fuel
F23C 1/12	1-Punkt Untergruppe	. gaseous and pulverulent fuel
F23C 3/00	Hauptgruppe	Combustion apparatus characterised by the shape of the combustion chamber (F23C 15/00 takes precedence) [1, 7, 2006.01]
F23C 5/00	Hauptgruppe	Combustion apparatus characterised by the arrangement or mounting of burners [1, 7, 2006.01]
F23C 5/02	1-Punkt Untergruppe	. Structural details of mounting
F23C 5/06	2-Punkt Untergruppe	Provision for adjustment of burner position during operation
F23C 5/08	1-Punkt Untergruppe	. Disposition of burners
F23C 5/14	2-Punkt Untergruppe	to obtain a single flame of concentrated or substantially planar form, e.g. pencil or sheet flame (F23C 5/32 takes precedence) [3]
F23C 5/24	2-Punkt Untergruppe	to obtain a loop flame
F23C 5/28	2-Punkt Untergruppe	to obtain flames in opposing directions, e.g. impacting flames
F23C 5/32	2-Punkt Untergruppe	to obtain rotating flames, i.e. flames moving helically or spirally [3]
F23C 6/00	Hauptgruppe	Combustion apparatus characterised by the combination of two or more combustion chambers [3, 7, 2006.01]
F23C 6/02	1-Punkt Untergruppe	. in parallel arrangement [3]
F23C 6/04	1-Punkt Untergruppe	. in series connection (consuming smoke or fumes in separate combustion apparatus F23G 7/06) [3]
F23C 7/00	Hauptgruppe	Combustion apparatus characterised by arrangements for air supply (inlets for fluidisation air F23C 10/20) [1, 7, 2006.01]
F23C 7/02	1-Punkt Untergruppe	. Disposition of air supply not passing through burner (to obtain a cyclonic tapering flame when burning pulverulent fuel F23C 5/32)
F23C 7/04	2-Punkt Untergruppe	to obtain maximum heat transfer to wall of combustion chamber
F23C 7/06	2-Punkt Untergruppe	for heating the incoming air (arrangements of regenerators or recuperators F23L 15/00)
F23C 7/08	3-Punkt Untergruppe	indirectly by a secondary fluid other than the combustion products

Symbol	Тур	Titel
F23C 9/00	Hauptgruppe	Combustion apparatus characterised by arrangements for returning combustion products or flue gases to the combustion chamber (fluidised bed combustion apparatus with means for recirculation of particles entrained from the bed F23C 10/02; fluidised bed combustion apparatus with devices for removal and partial reintroduction of material from the bed F23C 10/26) [1, 7, 2006.01]
F23C 9/06	1-Punkt Untergruppe	. for completing combustion [3]
F23C 9/08	1-Punkt Untergruppe	. for reducing temperature in combustion chamber, e.g. for protecting walls of combustion chamber [3]
F23C 10/00	Hauptgruppe	Apparatus in which combustion takes place in a fluidised bed of fuel or other particles [7]
F23C 10/01	1-Punkt Untergruppe	. in a fluidised bed of catalytic particles [2006.01]
F23C 10/02	1-Punkt Untergruppe	. with means specially adapted for achieving or promoting a circulating movement of particles within the bed or for a recirculation of particles entrained from the bed [7]
F23C 10/04	2-Punkt Untergruppe	the particles being circulated to a section, e.g. a heat-exchange section or a return duct, at least partially shielded from the combustion zone, before being reintroduced into the combustion zone [7]
F23C 10/06	3-Punkt Untergruppe	the circulating movement being promoted by inducing differing degrees of fluidisation in different parts of the bed [7]
F23C 10/08	3-Punkt Untergruppe	characterised by the arrangement of separation apparatus, e.g. cyclones, for separating particles from the flue gases [7]
F23C 10/10	4-Punkt Untergruppe	the separation apparatus being located outside the combustion chamber [7]
F23C 10/12	2-Punkt Untergruppe	the particles being circulated exclusively within the combustion zone [7]
F23C 10/14	3-Punkt Untergruppe	the circulating movement being promoted by inducing differing degrees of fluidisation in different parts of the bed [7]
F23C 10/16	1-Punkt Untergruppe	. specially adapted for operation at superatmospheric pressures, e.g. by the arrangement of the combustion chamber and its auxiliary systems inside a pressure vessel [7]
F23C 10/18	1-Punkt Untergruppe	. Details; Accessories [7]
F23C 10/20	2-Punkt Untergruppe	Inlets for fluidisation air, e.g. grids; Bottoms [7]
F23C 10/22	2-Punkt Untergruppe	Fuel feeders specially adapted for fluidised bed combustion apparatus (F23C 10/26 takes precedence) [7]
F23C 10/24	2-Punkt Untergruppe	Devices for removal of material from the bed (devices for controlling the level of the bed or the amount of material in the bed F23C 10/30) [7]
F23C 10/26	3-Punkt Untergruppe	combined with devices for partial reintroduction of material into the bed, e.g. after separation of agglomerated parts [7]
F23C 10/28	2-Punkt Untergruppe	Control devices specially adapted for fluidised bed combustion apparatus [7]
F23C 10/30	3-Punkt Untergruppe	for controlling the level of the bed or the amount of material in the bed [7]
F23C 10/32	4-Punkt Untergruppe	by controlling the rate of recirculation of particles separated from the flue gases [7]
F23C 11/00	Gelöscht	(transferred to F23C 99/00)
F23C 11/04	Gelöscht	(transferred to F23C 15/00)
F23C 13/00	Hauptgruppe	Apparatus in which combustion takes place in the presence of catalytic material (in a fluidised bed of catalytic particles F23C 10/01; radiant gas burners using catalysis for flameless combustion F23D 14/18) [2006.01]
F23C 13/02	1-Punkt Untergruppe	. characterised by arrangements for starting the operation, e.g. for heating the catalytic material to operating temperature [2006.01]
F23C 13/04	1-Punkt Untergruppe	. characterised by the arrangement of two or more catalytic elements in series connection [2006.01]

## F23C 10/18

Symbol	Тур	Titel
F23C 13/06	1-Punkt Untergruppe	. in which non-catalytic combustion takes place in addition to catalytic combustion, e.g. downstream of a catalytic element [2006.01]
F23C 13/08	1-Punkt Untergruppe	. characterised by the catalytic material [2006.01]
F23C 15/00	Hauptgruppe	Apparatus in which combustion takes place in pulses influenced by acoustic resonance in a gas mass [2006.01]
F23C 99/00	Hauptgruppe	Subject matter not provided for in other groups of this subclass [2006.01]
		Indexing scheme associated with group F23C 10/00, relating to combustion in entrained fluidised beds. [7]
F23C 101/00	Hauptgruppe	Combustion in entrained fluidised beds, i.e. fluidised beds which have no distinct upper surface [7]