Symbol	Typ	Titel
F	**Sektion**	**SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING**
F28	**Klasse**	**HEAT EXCHANGE IN GENERAL (heat-transfer, heat-exchange or heat-storage materials C09K 5/00; arrangement or mounting of heat-exchangers in air-conditioning, air-humidification or ventilation F24F 13/30)**
F28G	**Unterklasse**	**CLEANING OF INTERNAL OR EXTERNAL SURFACES OF HEAT-EXCHANGE OR HEAT-TRANSFER CONDUITS, e.g. WATER TUBES OF BOILERS (cleaning pipes or tubes in general B08B 9/02; devices or arrangements for removing water, minerals, or sludge from boilers while the boiler is in operation, or which remain in position while the boiler is in operation, or are specifically adapted to boilers without any other utility F22B 37/48; removal or treatment of combustion products or combustion residues F23J ; removing ice from heat-exchange apparatus F28F 17/00)**
F28G 1/00	**Hauptgruppe**	**Non-rotary, e.g. reciprocated, appliances (F28G 3/00 takes precedence)**
F28G 1/02	1-Punkt Untergruppe	. having brushes (brushes A46B)
F28G 1/04	1-Punkt Untergruppe	. having articulated tools, e.g. assembled in chain manner
F28G 1/06	1-Punkt Untergruppe	. having coiled wire tools, i.e. basket type
F28G 1/08	1-Punkt Untergruppe	. having scrapers, hammers, or cutters, e.g. rigidly mounted
F28G 1/10	2-Punkt Untergruppe	. . resiliently mounted
F28G 1/12	1-Punkt Untergruppe	. Fluid-propelled scrapers, bullets, or like solid bodies
F28G 1/14	1-Punkt Untergruppe	. Pull-through rods
F28G 1/16	1-Punkt Untergruppe	. using jets of fluid for removing debris (F28G 1/12 takes precedence)
F28G 3/00	**Hauptgruppe**	**Rotary appliances**
F28G 3/02	1-Punkt Untergruppe	. having abrasive tools
F28G 3/04	1-Punkt Untergruppe	. having brushes (brushes A46B)
F28G 3/06	1-Punkt Untergruppe	. having articulated tools, e.g. assembled in chain manner
F28G 3/08	1-Punkt Untergruppe	. having coiled wire tools, i.e. basket type
F28G 3/10	1-Punkt Untergruppe	. having scrapers, hammers, or cutters, e.g. rigidly mounted
F28G 3/12	2-Punkt Untergruppe	. . resiliently mounted
F28G 3/14	2-Punkt Untergruppe	. . thrown into working position by centrifugal force
F28G 3/16	1-Punkt Untergruppe	. using jets of fluid for removing debris
F28G 5/00	**Hauptgruppe**	**Cleaning by distortion (by vibration F28G 7/00)**
F28G 7/00	**Hauptgruppe**	**Cleaning by vibration**
F28G 9/00	**Hauptgruppe**	**Cleaning by flushing or washing, e.g. with chemical solvents (appliances using jets of fluid for removing debris F28G 1/16, F28G 3/16)**
F28G 11/00	**Hauptgruppe**	**Cleaning by combustion processes, e.g. using squibs, using travelling burners**
F28G 13/00	**Hauptgruppe**	**Appliances or processes not covered by groups F28G 1/00-F28G 11/00; Combinations of appliances or processes covered by groups F28G 1/00-F28G 11/00**
F28G 15/00	**Hauptgruppe**	**Details (measuring thickness of deposit G01B)**
F28G 15/02	1-Punkt Untergruppe	. Supports for cleaning appliances, e.g. frames

Symbol	Typ	Titel
F28G 15/04	1-Punkt Untergruppe	. Feeding or driving arrangements, e.g. power operation
F28G 15/06	2-Punkt Untergruppe	. . Automatic reversing devices
F28G 15/08	1-Punkt Untergruppe	. Locating position of cleaning appliances within conduits
F28G 15/10	1-Punkt Untergruppe	. Masks for delimiting area to be cleaned