

Symbol	Typ	Titel
F	Sektion	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F24	Klasse	HEATING; RANGES; VENTILATING
F24H	Unterkategorie	FLUID HEATERS, e.g. WATER OR AIR HEATERS, HAVING HEAT-GENERATING MEANS, IN GENERAL (heat-transfer, heat-exchange or heat-storage materials C09K 5/00; tube furnaces for thermal non-catalytic cracking C10G 9/20; devices, e.g. valves, for venting and aerating enclosures F16K 24/00; steam traps or like apparatus F16T; steam generation F22; combustion apparatus F23; domestic stoves or ranges F24B, F24C; domestic- or space-heating systems F24D; furnaces, kilns, ovens, retorts F27; heat-exchangers F28; electric heating elements or arrangements H05B)
F24H 1/00	Hauptgruppe	Water heaters having heat generating means, e.g. boiler, flow-heater, water-storage heater (F24H 7/00, F24H 8/00 take precedence; details F24H 9/00; steam boilers F22B; domestic stoves or ranges with additional provisions for heating water F24B 9/00, F24C 13/00) [1, 5, 2006.01]
F24H 1/06	1-Punkt Untergruppe	. Portable or mobile, e.g. collapsible [1, 2006.01]
F24H 1/08	1-Punkt Untergruppe	. Packaged or self-contained boilers, i.e. water heaters with control devices and pump in a single unit [1, 2006.01]
F24H 1/10	1-Punkt Untergruppe	. Continuous-flow heaters, i.e. heaters in which heat is generated only while the water is flowing, e.g. with direct contact of the water with the heating medium (F24H 1/50 takes precedence) [1, 5, 2006.01]
F24H 1/12	2-Punkt Untergruppe	... in which the water is kept separate from the heating medium [1, 2006.01]
F24H 1/14	3-Punkt Untergruppe	... by tubes, e.g. bent in serpentine form [1, 2006.01]
F24H 1/16	4-Punkt Untergruppe helically or spirally coiled [1, 2006.01]
F24H 1/18	1-Punkt Untergruppe	. Water-storage heaters (F24H 1/50 takes precedence; combined with water-heating stoves for central heating F24H 1/22) [1, 5, 2006.01]
F24H 1/20	2-Punkt Untergruppe	.. with immersed heating elements, e.g. electric elements or furnace tubes [1, 2006.01]
F24H 1/22	1-Punkt Untergruppe	. Water heaters other than continuous-flow or water-storage heaters, e.g. water heaters for central heating (F24H 1/50 takes precedence) [1, 5, 2006.01]
F24H 1/24	2-Punkt Untergruppe	.. with water mantle surrounding the combustion chamber or chambers (F24H 1/40, F24H 1/44 take precedence) [1, 3, 2006.01]
F24H 1/26	3-Punkt Untergruppe	... the water mantle forming an integral body [1, 2006.01]
F24H 1/28	4-Punkt Untergruppe including one or more furnace or fire tubes [1, 2006.01]
F24H 1/30	3-Punkt Untergruppe	... the water mantle being built-up from sections [1, 2006.01]
F24H 1/32	4-Punkt Untergruppe with vertical sections arranged side by side [1, 2006.01]
F24H 1/34	2-Punkt Untergruppe	.. with water chamber arranged adjacent to the combustion chamber or chambers, e.g. above or at side (F24H 1/24, F24H 1/44 take precedence) [1, 2006.01]
F24H 1/36	3-Punkt Untergruppe	... the water chamber including one or more fire tubes [1, 2006.01]
F24H 1/38	2-Punkt Untergruppe	.. with water contained in separate elements, e.g. radiator-type element (F24H 1/40, F24H 1/44 take precedence) [1, 2006.01]
F24H 1/40	2-Punkt Untergruppe	.. with water tube or tubes (F24H 1/44 takes precedence) [1, 2006.01]
F24H 1/41	3-Punkt Untergruppe	... in serpentine form [3, 2006.01]
F24H 1/43	3-Punkt Untergruppe	... helically or spirally coiled [3, 2006.01]

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F24H 1/44	2-Punkt Untergruppe	... with combinations of two or more of the types covered by groups F24H 1/24-F24H 1/40 [1, 2006.01]
F24H 1/46	1-Punkt Untergruppe	. Water heaters having plural combustion chambers [1, 2, 5, 2006.01]
F24H 1/48	1-Punkt Untergruppe	. Water heaters for central heating incorporating heaters for domestic water [5, 2006.01]
F24H 1/50	2-Punkt Untergruppe	... incorporating domestic water tanks [5, 2006.01]
F24H 1/52	2-Punkt Untergruppe	... incorporating heat exchangers for domestic water (F24H 1/50 takes precedence) [5, 2006.01]
F24H 3/00	Hauptgruppe	Air heaters having heat generating means (F24H 7/00, F24H 8/00 take precedence; details F24H 9/00; domestic stoves or ranges with additional provisions for convection heating of air F24B, F24C) [1, 5, 2006.01]
F24H 3/02	1-Punkt Untergruppe	. with forced circulation (F24H 3/12 takes precedence) [1, 2006.01]
F24H 3/04	2-Punkt Untergruppe	... the air being in direct contact with the heating medium, e.g. electric heating element [1, 2006.01]
F24H 3/06	2-Punkt Untergruppe	... the air being kept separate from the heating medium, e.g. using forced circulation of air over radiators [1, 2006.01]
F24H 3/08	3-Punkt Untergruppe	... by tubes [1, 2006.01]
F24H 3/10	3-Punkt Untergruppe	... by plates [1, 2006.01]
F24H 3/12	1-Punkt Untergruppe	. with additional heating arrangements [1, 2006.01]
F24H 4/00	Hauptgruppe	Fluid heaters using heat pumps [5, 2006.01]
F24H 4/02	1-Punkt Untergruppe	. Liquid heaters [5, 2006.01]
F24H 4/04	2-Punkt Untergruppe	... Storage heaters [5, 2006.01]
F24H 4/06	1-Punkt Untergruppe	. Gas heaters [5, 2006.01]
F24H 6/00	Hauptgruppe	Combined water and air heaters (F24H 8/00 takes precedence) [1, 5, 2006.01]
F24H 7/00	Hauptgruppe	Storage heaters, i.e. heaters in which the energy is stored as heat in masses for subsequent release (domestic stoves or ranges with additional heat storage masses F24B 1/24, F24C 15/34) [1, 2006.01]
F24H 7/02	1-Punkt Untergruppe	. the released heat being conveyed to a transfer fluid, e.g. air, water [1, 2006.01]
F24H 7/04	2-Punkt Untergruppe	... with forced circulation of the transfer fluid [1, 2006.01]
F24H 7/06	1-Punkt Untergruppe	. the released heat being radiated [1, 2006.01]
F24H 8/00	Hauptgruppe	Fluid heaters having heat-generating means specially adapted for extracting latent heat from flue gases by means of condensation [5, 2006.01]
F24H 9/00	Hauptgruppe	Details [1, 2006.01]
F24H 9/02	1-Punkt Untergruppe	. Casings; Cover lids; Ornamental panels [1, 2006.01]
F24H 9/06	1-Punkt Untergruppe	. Arrangement of mountings or supports [1, 2006.01]
F24H 9/12	1-Punkt Untergruppe	. Connecting heaters to circulation pipes (pipe joints in general F16L) [1, 2006.01]
F24H 9/14	1-Punkt Untergruppe	. Connecting different sections, e.g. in water heaters (in radiators F28F 9/26) [1, 2006.01]
F24H 9/16	1-Punkt Untergruppe	. Arrangements for water drainage (valves for drainage F16K, e.g. F16K 21/00; in pipes or pipe systems in general F16L 55/00; in domestic-or space-heating systems F24D 19/08) [1, 2006.01]
F24H 9/18	1-Punkt Untergruppe	. Arrangement or mounting of grates, burners, or heating elements (burners F23D; grates F23H; electric heating elements H05B) [1, 2006.01]

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F24H 9/20	1-Punkt Untergruppe	. Arrangement or mounting of control or safety devices (control valves F16K; safety devices for burners F23D; combustion control devices F23N; of systems comprising a heater, <u>see</u> the relevant subclasses, e.g. of control heating systems F24D 19/10; automatic switching for electric heating apparatus H05B 1/02) [1, 2006.01]