

CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING (NOTE omitted)

LIGHTING; HEATING

F28 HEAT EXCHANGE IN GENERAL (NOTES omitted)

F28C HEAT-EXCHANGE APPARATUS, NOT PROVIDED FOR IN ANOTHER SUBCLASS, IN WHICH THE HEAT-EXCHANGE MEDIA COME INTO DIRECT CONTACT WITHOUT CHEMICAL INTERACTION (safety devices in general [F16P](#); fluid heaters having heat generating means [F24H](#); with an intermediate heat-transfer medium coming into direct contact with heat-exchange media [F28D 15/00](#) - [F28D 19/00](#); details of heat-exchange apparatus of general application [F28F](#))

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00	Direct-contact trickle coolers, e.g. cooling towers (building construction E04H 5/12 ; enclosed spaces cooled by trickle F25 ; components parts of trickle coolers F28F 25/00 ; {indirect-contact cooling towers F28B 1/06 })	3/14	. . . the particulate material moving by gravity, e.g. down a tube
		3/16	. . . the particulate material forming a bed, e.g. fluidised, on vibratory sieves
		3/18	. . . the particulate material being contained in rotating drums
1/003	. {comprising outlet ducts for exhaust gases}		
2001/006	. {Systems comprising cooling towers, e.g. for recooling a cooling medium}		
1/02	. with counter-current only		
1/04	. with cross-current only		
1/06	. with both counter-current and cross-current		
1/08	. Arrangements for recovering heat from exhaust steam		
1/10	. Arrangements for suppressing noise		
1/12	. Arrangements for preventing clogging by frost		
1/14	. comprising also a non-direct contact heat exchange		
2001/145	. . {with arrangements of adjacent wet and dry passages}		
1/16	. Arrangements for preventing condensation, precipitation or mist formation, outside the cooler (F28C 1/14 takes precedence)		
3/00	Other direct-contact heat-exchange apparatus		
3/005	. {one heat-exchange medium being a solid (F28C 3/10 takes precedence)}		
3/02	. the heat-exchange media both being gases or vapours		
3/04	. the heat-exchange media both being liquids		
3/06	. the heat-exchange media being a liquid and a gas or vapour (temperators for cooling steam F22)		
3/08	. . with change of state, e.g. absorption, evaporation, condensation (generating steam under pressure F22)		
3/10	. one heat-exchange medium at least being a fluent solid, e.g. a particulate material		
3/12	. . the heat-exchange medium being a particulate material and a gas, vapour, or liquid		