

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.

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|-------------|---|------|---|
| 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 (for condensers F28B 9/06)} | | |
| 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 | | |