

ECLA EUROPEAN CLASSIFICATION

- F23R GENERATING COMBUSTION PRODUCTS OF HIGH PRESSURE OR HIGH VELOCITY, e.g. GAS-TURBINE COMBUSTION CHAMBERS** (using such products for specific purposes, see the relevant classes for the purposes; chemical aspects of gas production [C06D5/00](#); gas-turbine plants characterised by the arrangement of the combustion chamber in the plant [F02C3/14](#); arrangement of afterburners in jet-propulsion plants [F02K3/10](#); combustion chambers of rocket-engine plants [F02K9/00](#))
- F23R3/00 Continuous combustion chambers using liquid or gaseous fuel**
- F23R3/00B . [N: Wall structures ([F23R3/02](#) and [F23R3/00K](#) take precedence)]
 - F23R3/00C . [N: Combined with pressure or heat exchangers]
 - F23R3/00K . [N: constructed mainly of ceramic components]
 - F23R3/02 . characterised by the air-flow or gas-flow configuration (reverse-flow combustion chambers [F23R3/54](#); cyclone or vortex type combustion chambers [F23R3/58](#))
 - F23R3/04 . . Air inlet arrangements
 - F23R3/04B . . . [N: using pipes]
 - F23R3/06 . . . Arrangement of apertures along the flame tube
 - F23R3/08 between annular flame tube sections, e.g. flame tubes with telescopic sections
 - F23R3/10 for primary air ([F23R3/06](#), [F23R3/04B](#) take precedence)
 - F23R3/12 inducing a vortex
 - F23R3/14 by using swirl vanes
 - F23R3/16 . . with devices inside the flame tube or the combustion chamber to influence the air or gas flow
 - F23R3/18 . . . Flame stabilising means, e.g. flame holders for after-burners of jet-propulsion plants
 - F23R3/20 incorporating fuel injection means
 - F23R3/22 movable, e.g. to an inoperative position; adjustable, e.g. self-adjusting
 - F23R3/24 of the fluid-screen type
 - F23R3/26 . . Controlling the air flow
 - F23R3/28 . characterised by the fuel supply (burners [F23D](#))
 - F23R3/28B . . [N: Attaching or cooling of fuel injecting means] [C9410]
 - F23R3/28D . . [N: having fuel-air premixing devices ([F23R3/30](#) takes precedence)] [N9410]
 - F23R3/30 . . comprising fuel prevapourising devices
 - F23R3/32 . . . being tubular
 - F23R3/34 . . Feeding into different combustion zones

- F23R3/34C . . . [N: Pilot flames, i.e. fuel nozzles or injectors using only a very small proportion of the total fuel to insure continuous combustion (ignition in gas-turbine plants [F02C7/264](#); pilot flame igniters [F23Q9/00](#))]
- F23R3/34D . . . [N: for staged combustion] [N9410]
- F23R3/36 . . . Supply of different fuels
- F23R3/38 . . . comprising rotary fuel injection means
- F23R3/40 . . . characterised by the used of catalytic means
- F23R3/42 . . . characterised by the arrangement or form of the flame tubes or combustion chambers
- F23R3/42C . . . [N: Combustion chambers comprising a tangential or helicoidal arrangement of the flame tubes]
- F23R3/44 . . . Combustion chambers comprising a [N: single] tubular flame tube within a tubular casing ([reverse-flow combustion chambers F23R3/54](#)) [C9412]
- F23R3/46 . . . Combustion chambers comprising an annular arrangement of [N: several essentially tubular] flame tubes within a common annular casing or within individual casings [C9412]
- F23R3/48 . . . Flame tube interconnectors, e.g. cross-over tubes
- F23R3/50 . . . Combustion chambers comprising an annular flame tube within an annular casing ([toroidal combustion chambers F23R3/52](#))
- F23R3/52 . . . Toroidal combustion chambers
- F23R3/54 . . . Reverse-flow combustion chambers
- F23R3/56 . . . Combustion chambers having rotary flame tubes
- F23R3/58 . . . Cyclone or vortex type combustion chambers
- F23R3/60 . . . Support structures; Attaching or mounting means

F23R5/00 Continuous combustion chambers using solid or pulverulent fuel

F23R7/00 Intermittent or explosive combustion chambers