

## ECLA EUROPEAN CLASSIFICATION

- F23J**                    **REMOVAL OR TREATMENT OF COMBUSTION PRODUCTS OR COMBUSTION RESIDUES** [N: (from fluidised-bed combustion apparatus [F23C11/02T5](#))]; **FLUES** (precipitating dust from flue gases B01D; composition of fuel C10; combustion apparatus for consuming smoke or fumes, e.g. exhaust gases, [F23G7/06](#))
- Note on scope**  
This subclass covers the cleaning of external surfaces of water tubes of boilers
- F23J1/00**                **Removing ash, clinker, or slag from combustion chamber** [N: arrangements for collecting bottom ash and flyash [F23J3/06](#); removing flyash from fluegas [F23J15/02D](#)] [C9910]
- F23J1/02                . Apparatus for removing ash, clinker, or slag from ash-pits, e.g. by employing trucks or conveyers, by employing suction devices
- F23J1/04                . Hand tools, e.g. rakes, prickers, tongs
- F23J1/06                . Mechanically-operated devices, e.g. clinker pushers (forming part of the grate [F23H](#))
- F23J1/08                . Liquid slag removal
- F23J3/00**                **Removing solid** [N: deposited] **residues from passages or chambers beyond the fire, e.g. from flues by soot blowers** [N: (soot blowers per se [F28G1/16](#))] [C9910]
- F23J3/02                . Cleaning furnace tubes; Cleaning flues or chimneys (by means which do not differ materially from the cleaning of any other tube once the fire is out [B08B](#))
- F23J3/02B              . . [N: cleaning the fireside of watertubes in boilers]
- F23J3/02C              . . [N: cleaning the chimneys]
- F23J3/04                . Traps
- F23J3/06                . Systems for accumulating residues from different parts of furnace plant
- F23J7/00**                **Arrangement of devices for supplying chemicals to fire** (supplying chemicals to fire [C10L](#); [N: to fumes [F23J15/00F](#)])
- F23J9/00**                **Preventing premature solidification of molten combustion residues**
- F23J11/00**              **Devices for conducting smoke or fumes, e.g. flues** ([N: removing fumes other than combustion fumes from the area where they are produced, in general [B08B15/00](#)]; heat insulation therefor [E04B1/94](#); chimneys [E04H12/28](#); removing cooking fumes from domestic stoves or ranges [F24C15/20](#); [N: fume conduits of furnaces, kilns, ovens, or retorts [F27D17/00B1](#)])
- F23J11/02              . for conducting smoke or fumes originating from various locations to the outside, e.g. in

- locomotive sheds, in garages
- F23J11/04 . in locomotives; in road vehicles; in ships
- F23J11/06 . . for conducting smoke horizontally
- F23J11/08 . for portable apparatus
- F23J11/10 . for tents; for log huts; for other inflammable structures
- F23J11/12 . Smoke conduit systems for factories or large buildings
- F23J13/00** **Fittings for chimneys or flues** (staying, stiffening [E04H](#); means for facilitating climbing [E06C](#); draught-inducing apparatus associated with chimneys or flues [F23L](#))
- F23J13/02 . Linings; Jackets; Casings
- F23J13/02B . . [N: composed of concentric elements, e.g. double walled (in general [F16L](#); terminals for balanced flue arrangements [F23L17/04](#))]
- F23J13/04 . Joints; Connections (pipe joints in general [F16L](#))
- F23J13/06 . Mouths; Inlet holes
- F23J13/08 . Doors or covers specially adapted for smoke-boxes, flues, or chimneys (in general [E06B](#))
- F23J15/00** **Arrangement of devices for treating smoke or fumes** (treating smoke or fumes, see the relevant class for the treatment, e.g. [B01D53/00](#))
- F23J15/00F . [N: for supplying chemicals to fumes, e.g. using injection devices (to fire [F23J7/00](#))]
- F23J15/00P . [N: Layout of treatment plant]
- F23J15/02 . of purifiers, e.g. for removing noxious material (traps for solid [N: deposits] [F23J3/04](#)) [[C9910](#)]
- F23J15/02D . . [N: for removing solid particulate material from the gasflow] [[N9910](#)]
- F23J15/02D1 . . . [N: using filters] [[N9910](#)]
- F23J15/02D3 . . . [N: using cyclone separators] [[N9910](#)]
- F23J15/04 . . using washing fluids [N: scrubbers for removing solids only [F23J15/02D](#)] [[C9910](#)]
- F23J15/06 . of coolers
- F23J15/08 . of heaters
- F23J99/00** **Subject matter not provided for in other groups of this subclass** [[N0704](#)]