

An apparatus for separating solids from flue gas in a circulating fluidized bed (CFB) boiler comprises plural vertical, impact type particle separators made of a plurality of hung elements which are supported from at least one cooled support tube. The plurality of hung elements cooperate with one another at adjacent ends thereof to form a collecting channel which opens toward a flow of flue gas along the length of the support tube. Each hung element includes two mutually inverted U-shaped parts; the first U-shaped part opens towards the oncoming flow of flue gas, the second U-shaped part embraces the support tube, and the first U-shaped part is shifted relative to the second U-shaped part by some fraction of a height of the hung element. The hung elements may be made of metal or ceramic.