

Title (en)

REGULATION METHOD FOR THE COMBUSTION AIR QUANTITY OF A BURNER APPARATUS

Publication

**EP 0156958 B1 19890510 (DE)**

Application

**EP 84112866 A 19841025**

Priority

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Abstract (en)

[origin: EP0156958A1] 1. Method of controlling the combustion air volume (air volume  $\lambda$ ) of a furnace plant with a burner as a function of the CO content (CO concentration) in the flue gas measured by a transducer, in which excess air is fed to the burner until the CO concentration in the flue gas reaches a low value, characterised by the following method stages : a) when the air volume is deficient, various values of CO concentration are determined and stored with the associated air volumes ( $\lambda$  values C and C') and the gradient of a straight line (G) for the CO values versus the air volume ( $\lambda$  axis) is determined from the stored values ; b) starting from the air volume setting with excess air ( $\lambda$  value A), the excess air is reduced until a CO concentration which is presettable and reliably recordable with the transducer is obtained in the flue gas (for example 50 ppm CO,  $\lambda$  value C) ; c) starting from the value for the CO concentration in the flue gas set according to method stage b) and the associated air volume, the working point of the burner is fixed at an air volume which corresponds to the point of intersection of the straight line (G) with the  $\lambda$  axis ( $\lambda$  value B) or deviates therefrom to a desired extent ; d) method stages b) and c) are repeated continuously or at presettable intervals of time in a cyclic sequence so that an optimal quantity of air and fuel for the combustion is obtained (Fig. 1).

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Cited by

DE19923059A1; EP0646752A1; EP0334779A1; FR2628827A1; DE19712771C2; EP0655583A1; DE4340534A1; GB2224105A; GB2224105B; EP2428732A3; WO2008070627A3; WO9310402A1; US7896647B2; US7549858B2

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