

Title (en)

ROTATIONAL ATOMIZER AND AIR SUPPLY SYSTEM FOR FUEL BURNERS USING THE ROTATIONAL ATOMIZER.

Title (de)

ROTIERENDER ZERSTÄUBER UND LUFTZUFUHRSYSTEM FÜR BRENNSTOFFBRENNER DIE MIT DIESEM ZERSTÄUBER VERSEHEN SIND.

Title (fr)

ATOMISEUR ROTATIF ET SYSTEME D'ALIMENTATION EN AIR POUR BRULEURS DE COMBUSTIBLE UTILISANT CET ATOMISEUR.

Publication

EP 0665937 A1 19950809 (EN)

Application

EP 93924783 A 19931029

Priority

- HU 9300061 W 19931029
- HU 9203395 A 19921029

Abstract (en)

[origin: WO9410502A1] Rotational atomizer preferably for fuel burners that uses two stage atomization, in which a first atomizer (13) sprays out atomized liquid along paths closing acute angles with a central axis, the second stage comprises a bladed wheel (10) with slots (15) arranged around the first atomizer (13) so that the slots (15) intersect said paths, and a motor (4) coupled to and rotating the bladed wheel (10) with high speed so that the particles created in the first stage enter the slots (15), impact on the slot walls and form thin films flowing in radially outward direction and flying out in finely atomized state past reaching outer edges of the slots (15). An air supply system is also provided for fuel burners using a rotational atomizer. The system comprises a ring-shaped channel (7) for primary air with axial airflow to a circular zone, in which fuel particles leave the atomizer (10, 13) along tangential paths, and a secondary airflow channel (24) around the primary airflow channel (7), wherein a ring-shaped space (25) is formed between mouth openings of the primary and secondary airflow channels (7, 24) closed by a screen (26), and predetermined amount of air is fed in the space (25) behind the screen (26) to counterbalance any vacuum that would otherwise build up in front of the screen (26).

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