

Title (en)
Ultrasonic transducer

Title (de)
Ultraschallwandler

Title (fr)
Transducteur ultrasonore

Publication
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Application
EP 99810540 A 19990618

Priority
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Abstract (en)
The present invention deals with an ultrasonic transducer mounted on the bottom or side surface of the cleaning tank of an ultrasonic cleaner. The ultrasonic transducer of the present invention includes: piezoelectric ceramics, electrodes for applying power to the piezoelectric ceramics, masses to be vibrated by the piezoelectric ceramics, a fastening means with a stud and a nut. and the front mass with various geometry vertical slits on its upper surface. The front mass has the recesses (vertical slits) on its top surface in order to improve the longitudinal mechanical quality factor ("Q_{meff}") of piezoelectric ceramics determining the cleaning efficiency of the ultrasonic cleaner. Preferably, the width of the recesses is 1 SIMILAR 2 mm and the depth is 1/3 SIMILAR 1/2 of the longitudinal length of the front mass. <IMAGE>

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Cited by
CN109622545A; CN104438029A; CN106269694A; US10316387B2; US8652397B2; US10233515B1; WO2004041449A1; WO2016107521A1; US6841921B2; US7514846B2; US8574336B2; US8844897B2; US9617617B2; US10640846B2

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