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(71) Applicant(s):

SONOSCAN, INC. [US/US]; 2149 E. Pratt Blvd. Elk Grove Village, IL 60007 (US) *(for all designated states)*

(72) Inventor(s):

ORAVECZ, Michael, G.; 1113 Dickens lane Naperville, IL 60564 (US)

ERICKSON, Daniel, M.; 9245 W. Irving Park Rd. Schiller Park, IL 60176 (US)

MICEK, Daniel, W.; 8251 West Foster Avenue Norridge, IL 60706 (US)

(74) Agent(s):

FELDMAN, Steve, E.; Welsh & Katz, LTD 120 South Riverside Plaza 22nd Floor Chicago, IL 60606 (US)

(54) Title (EN): AUTOMATED ACOUSTIC MICRO IMAGING SYSTEM AND METHOD

(54) Title (FR): SYSTEME ET PROCEDE DE MICRO-IMAGERIE ACOUSTIQUE AUTOMATISES

(57) Abstract:

(EN): An automated acoustic micro imaging system includes a part-storage station (22) favoring a dry environment, a part-transport robot, and a wet-environment inspection station. The wet-environment inspection station (20) has an ultrasonic beam generator, a coupling fluid in which parts are inspected, and a part-retention stage (93). A moisture barrier (52) is located between the wet-environment inspection station and the part-storage station (93) favoring a dry environment. The inspection station includes a kinematic, quick-change part-retaining chuck and robotic means for interchanging chucks. Automatic acoustic micro imaging methods are disclosed.

(FR): L'invention concerne un système de micro-imagerie acoustique automatisé comprenant une station de stockage de partie (22) favorisant un environnement sec, un robot de transport de partie, et une station d'inspection en environnement humide. La station d'inspection en environnement (20) humide comporte un générateur de faisceau ultrasonore, un fluide de couplage dans lequel des parties sont inspectées, et un étage de rétention de partie (93). Une barrière contre l'humidité (52) est disposée entre la station d'inspection en environnement humide et la station de stockage de partie (93) favorisant un environnement sec. La station d'inspection comprend un support de maintien de partie, cinématique, à changement rapide et des moyens robot destinés à interchanger les supports. L'invention concerne aussi des procédés de micro-imagerie acoustique automatisés.

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