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(19) **United States**(12) **Patent Application Publication**
SHIBAZAKI et al.(10) **Pub. No.: US 2022/0352804 A1**(43) **Pub. Date: Nov. 3, 2022**(54) **LINEAR MOTOR FOR VACUUM AND
VACUUM PROCESSING APPARATUS****Publication Classification**(51) **Int. Cl.****H02K 41/03** (2006.01)**H02K 5/10** (2006.01)**H02K 5/22** (2006.01)(52) **U.S. Cl.****CPC** **H02K 41/031** (2013.01); **H02K 5/10**(2013.01); **H02K 5/225** (2013.01); **H01J****37/023** (2013.01)(71) Applicant: **Hitachi High-Tech Corporation,**
Tokyo (JP)(72) Inventors: **Tomotaka SHIBAZAKI**, Tokyo (JP);
Masaki MIZUOCHI, Tokyo (JP)(21) Appl. No.: **17/857,453**(22) Filed: **Jul. 5, 2022****Related U.S. Application Data**(63) Continuation of application No. 16/600,010, filed on
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ABSTRACT

A vacuum processing apparatus includes a linear motor. The linear motor includes a mover having a permanent magnet, a stator having a coil covered by a resin member, and a wire for supplying a current to the coil provided in a vacuum sample chamber. The wire is led out to an outside of the vacuum sample chamber through a through hole portion provided in the wall surface of the vacuum sample chamber. The through hole portion is filled with the resin member integrally or with a filler that binds to the resin member, so that the through hole portion is sealed.

