

Title (en)

GRIPPER FOR TEST SAMPLES, POSITIONING DEVICE FOR RAW SAMPLES, HANDLING SYSTEM FOR RAW SAMPLES AND TEST SAMPLES, AND TEST SYSTEM FOR VISCOELASTIC MATERIALS

Title (de)

GREIFER FÜR PRÜFKÖRPER, POSITIONIERVORRICHTUNG FÜR ROHPROBEN, HANDHABUNGSSYSTEM FÜR ROHPROBEN UND PRÜFKÖRPER SOWIE PRÜFSYSTEM FÜR VISKO-ELASTISCHE WERKSTOFFE

Title (fr)

PINCE POUR ÉPROUVETTE, DISPOSITIF DE POSITIONNEMENT POUR ÉCHANTILLONS BRUTS, SYSTÈME DE MANIPULATION POUR ÉCHANTILLONS BRUTS ET ÉPROUVETTE AINSI QUE SYSTÈME POUR ÉPROUVER DES MATÉRIAUX VISCOÉLASTIQUES

Publication

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Application

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Abstract (en)

[origin: WO2018104030A1] The invention relates to a skewer-type gripper (6) for gripping one end of a test sample (3) that consists of a viscoelastic material and has an upper face (3a) and an edge region (3b). The gripper has a base (6a) and skewer-type means (7, 7', 7'', 7''') that are arranged therein and can pierce the edge region (3b) of a test sample (3) in parallel to the upper face (3a) thereof and that are designed such that the test sample (3) can be held by the skewer-type means (7, 7', 7'', 7''') in a rotationally fixed manner. The invention further relates to a multifunctional gripper for a robot arm, comprising: a first effector (4) having gripping jaws (5, 5') that can be moved towards each other in pairs and that receive and handle, by moving, positioning and securing, a raw sample (2) prior to and during the punching of the test sample (3); a second effector (6) having a skewer-type gripper (6) according to any of claims 1 to 6 for receiving and handling/transferring test samples (3) after punching; a third effector (13) having suction means for handling by transferring and positioning a test sample (3); and a fourth effector (14) having suction means for handling/transferring a raw sample (2), each of the effectors (4, 6, 13, 14) being arranged and designed such that it can be controlled in terms of its position, its position with respect to the raw sample (2) or the test sample (3), its orientation, contact force and movement. The invention further relates to a device (20) for positioning raw samples (2) and test samples (3), a handling system (1) for viscoelastic raw samples (2) and test samples (3) and an automated test system for material testing of viscoelastic test samples (3).

IPC 8 full level

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