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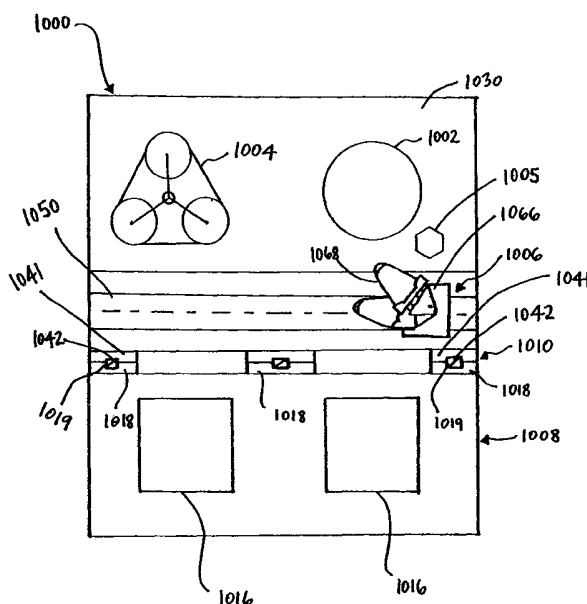
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[Continued on next page]

(54) **Title:** MODULAR TOOL UNIT FOR PROCESSING MICROELECTRONIC WORKPIECES



(57) **Abstract:** A modular apparatus for thermally processing a microelectronic workpiece is provided. The modular apparatus comprises a mounting module having a rotatable carousel assembly configured to support at least one workpiece. A driver is coupled to the carousel assembly and rotates the carousel assembly, moving the workpiece between a loading station, a heating station and a cooling station. The thermal processing modular apparatus has a front docking unit for removeably connecting it to a load/unload module and a rear docking unit for removeably connecting it to a wet chemical processing tool, or another tool for otherwise processing a workpiece. A transport system (i.e., robot) services the modular tool units that can be automatically calibrated to work with individual processing components of the tool units.

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B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/0055934 A1 (Cheung) 27 DEC 2001 (27.12.2001), figures 4, 5, paragraphs [0024] and [0046], claim 5.	1-5,12,17,18-22,24
X	US 4,480,822 (Mauratelli) 6 NOV 1984 (6.12.1984) figures 1-2, columns 4 - 5.	1,6,7 and 11
Y	US 4,480,822 (Mauratelli) 6 NOV 1984 (6.12.1984) figures 1-2, columns 4 - 5.	6,7,13,14,16,23-31
A	US 6,747,734 B1 (Ritzdorf et al.) 8 JUN 2004 (8.06.2004), figures 1 - 10.	1-31
A	US 2004/0016637 A1 (Yang et al.) 29 JAN 2004 (29.01.2004) figure 1.	1-31
A	US 2002/0084052 A1 (Crafton et al.) 4 JUL 2002 (4.07.2002), figure 1.	1-31

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