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(71) Applicants (for all designated States except US): **ADVANCED TECHNOLOGY MATERIALS, INC.** [US/US]; 7 Commerce Drive, Danbury, CT 06810-4169 (US). **MATHESON TRI-GAS, INC.** [US/US]; 1861 Lefthand Circle, Longmont, CO 80501 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MCMANUS, James, V.** [US/US]; 73 Taylor Road, Danbury, CT 06801 (US). **MULLER, Stuart** [US/US]; 12 Wilson Pond Lane, Rowley, MA 01969 (US). **CLEMENT, Ryan** [US/US]; 11 Jackson Road, Burlington, MA 01803 (US).

(74) Agent: **HULTQUIST, Steven, J.**; INTELLECTUAL PROPERTY/TECHNOLOGY LAW, P.O. Box 14329, Research Triangle Park, NC 27709 (US).

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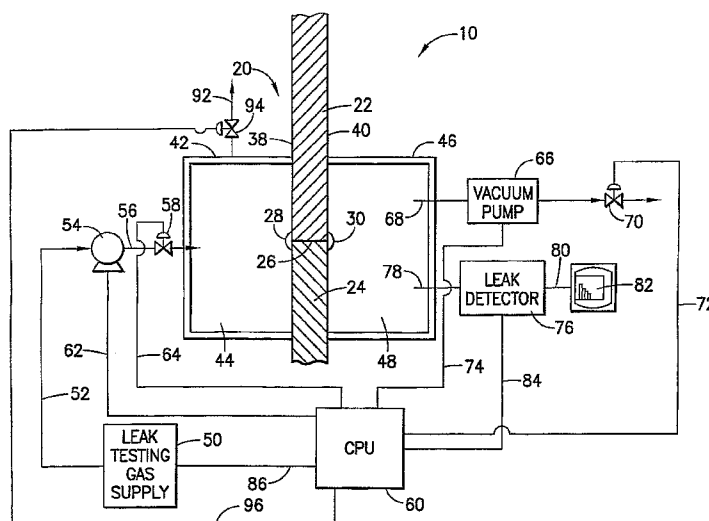
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(54) Title: APPARATUS AND PROCESS FOR LEAK-TESTING AND QUALIFICATION OF FLUID DISPENSING VESSELS



(57) Abstract: A system (10) for leak-testing an article (20) required to be fluid leak-tight in use at a fluid contacting region (38) thereof, to determine fluid leakage through the article to a non-fluid contacting region (40) of the article. The system includes a leak-testing fluid held in confinement by the fluid-contacting region of the article, a vacuum assembly (46, 66) arranged for establishing a vacuum environment at the non-fluid-contacting region of the article, and a leak detector (76) arranged to detect presence or absence of the leak-testing fluid in the vacuum environment, to determine fluid leakage through the article. The system enables leak sensitivity significantly below 1×10^{-6} standard atmospheric-cc/sec to be achieved, e.g., sensitivity in a range of from 1×10^{-7} to 1×10^{-11} standard atmospheric-cc/sec, and is useful for quality assurance testing of vessels (118) intended to carry hazardous gases.

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