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# Air Resources Board

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## TECHNICAL BULLETIN 702-1

API 701 Zero Air Module  
November 2006

### Issue

The original pump used in API Models 701, 701C, and 701H Zero Air Modules (Thomas model 8668 pump) are unusually difficult to rebuild/repair.

### Symptom

Screws holding diaphragms on pistons are usually frozen in place and are extremely difficult to remove with normal tools. Attempts to remove these screws usually results in stripping screw threads.

### Solution

MLD staff should not attempt to rebuild the Thomas (model 8668 pump) in the field. If a Thomas pump used in the API 701 Zero Air Module requires service, field staff should contact the Operations Support Section (OSS) for a replacement pump. Upon receipt of a new pump, the old Thomas pump should be returned to the OSS Instrument Lab.

API has switched pumps used in API 701 Zero Air Modules to the Gast model 71R142-P001B-D300X. When procured from API as (API Part number 056870000), new Gast pump will have an electrical connector compatible with the circuit board, and be bolted on a new mounting-plate. The OSS stockroom has ordered a supply of the new Gast pumps, which will eventually replace all the Thomas pumps now in use.

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*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.  
For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency