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Product Highlight:
**TRANSMISSION VALVE
BODY TEST**

The MCM transmission valve body test line is comprised of MCM test machines, conveyor transport and MCM oil removal stations as a turnkey system. The machines test the functionality of the valve body as well as characterize its performance for later use in the assembly line. The entire system consists of several test machines, oil removal stations and repair stations linked by automated conveyor that tracks and routes the parts.



Background

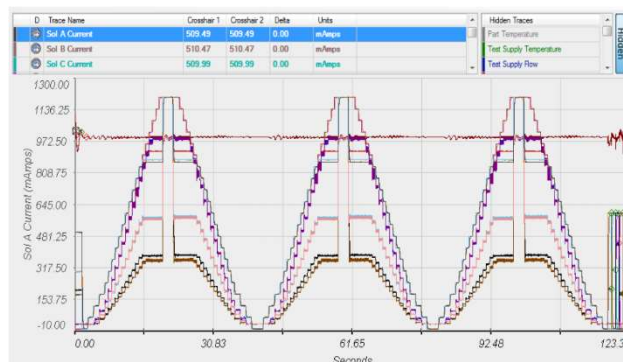
There can be inconsistencies in transmission valve body performance due to variations in assembly and consistency of individual components. This machine tests flow paths of each channel, functionality of each solenoid and characterizes the performance of those solenoids so that the transmission control module (TCM) can compensate for the variance. The machine clamps and submerges the whole VB assembly, while supplying ATF at pressure to simulate the final application conditions. Every solenoid is sequentially energized with a controlled electric current, commanded in steps ramping up and down for the full scale of operation. The software reads and saves the pressure, flow and response performance data that comes out of the VB tests. All the data collected, is matched with the serial number of the VB and is sent to a “cloud” server via MCVM. This is the characterization data that is later used by the Transmission Control Module, but is also part of the test records that are stored both locally and in a corporate database for later tracking.

Machine Features:

- Single Test heads with moving sump
- Test time excluding fill and drain – 200 Sec.
- Test Oil Temperature adjustable 40 - 60° C. ± 2 °C in the tank
- Fluid supply range is 400 to 2200 kPa ± 3.5 kPa, capacity of 20 LPM.
- PT range 0 to 2500 kPa with accuracy error less or equal to $\pm 0.05\%$ FS BSL
- Coriolis flow meters, 3 total in each machine. 1 High 1 Low 1 Supply
- Adler Solenoid drivers utilizing a 32 MHz clock device with Infineon IC
- Part clamping up to 2,000 lb force at each bolt position
- Programmable test cycle

Ease of Use

We design our touch interface to be intuitive to use. The display always shows what you need to know and if you want to know more detail, this is possible with the touch of a finger.



Please contact us at sales@mcm1.com for more information.