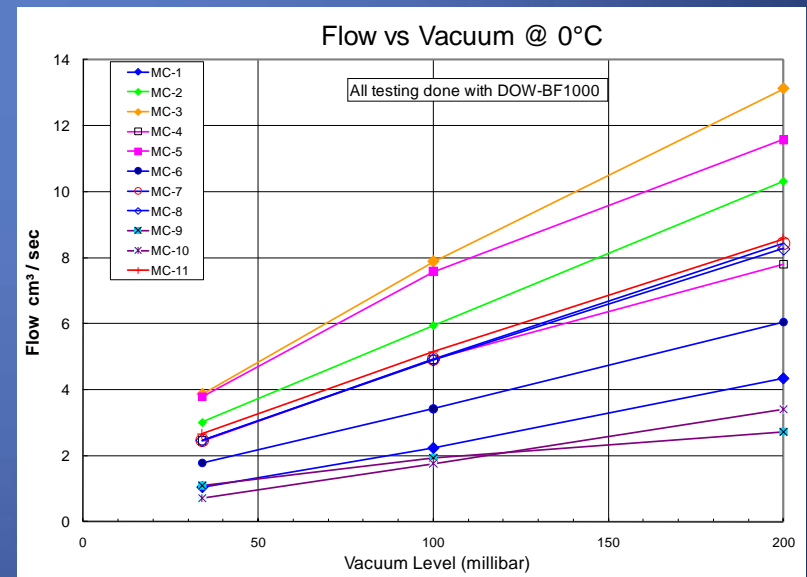
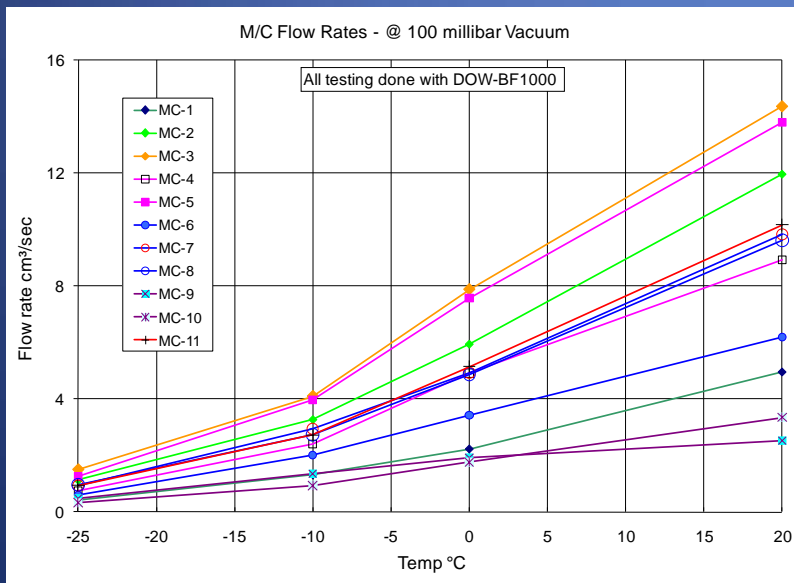


# Master Cylinder/ HCU Flow Rate Measurement Recommended Practice

New Task Force Being Formed



# The Issue:

- Vehicle OEMs specify the flow rates of master cylinders, and/or pressure rise times at wheel ends. This information is critical for predicting stopping distance and ESC, ABS, ACC etc performance.
- Currently there is no accepted common test method for making these measurements at the component level and no common format for expressing the results.
- This results in repeated testing, extra cost and lost time during vehicle system development.

# Many Variations:

Currently flow rates are specified as either:

The pressure drop for a given flow rate (i.e. < 100mbar pressure drop @ 4cc/min). or the flow rate at a specified pressure drop (i.e. >6cc/min @ 200mbar pressure drop).

The temperature at which the tests are run is specified but:

There is no standard set of temperatures.

Some OEM request data at -25C, some at -30C and some at -40C  
In addition to R.T.

Every master cylinder manufacturer has their own test set up and procedure so it is not possible to compare data from different makers of master cylinders unless they are all retested on the same test rig.

# The Need:

A common global industry method to measure brake fluid flow rates and a common format for presenting the results so that data from different sources can be compared.

# Action Required:

- A new SAE Task Force under the Hydraulic Brake Components Committee should be formed.
- A chairperson, preferably from one of the major Tier 1's, is needed.
- Task Force members from OEM's and other tier 1's are required.
- This Task Force has the support of the SAE Chassis Systems Committee.
- Those interested should contact Steve Brown of the Hydraulic Brake Actuating Forum. E-mail [scb-sae@att.net](mailto:scb-sae@att.net)