UPDATE AUDIE TECHNOLOGY

MARCH 2004

New Website

We have just finished a complete revision of our website. The site has been updated and re-organized. New information and photos have also been added. Check it out at www.audietech.com

Why 28 Inches, Why Depression?

Have you every wondered why most flow testing is done at 28 inches of depression? And while I'm wondering, where did the term "depression" come from? Why not use "test pressure" (many do use "test pressure") or "vacuum"?

Recently one of my better customers shared with me a possible explanation for these mysteries. It seems we can thank Smokey Yunick for both of them. In his book, Smokey Yunick's Power Secrets (copyright 1985, published by S-A Design) he writes, "Once we had this worked out, the next thing we had to determine was how much pressure depression - 'vacuum' if you will - to use for pulling air through test fixture." Since Smokey's bench only worked with vacuum (he sucked through the header to test exhaust ports), thinking of the test pressure as a depression from normal atmospheric pressure, was logical. It seems the term stuck.

Smokey goes on to describe how he would make large changes to a port and see very little effect when he tested at 10 inches, which was the depression that most people used. So he repeated the test at higher depressions and got the same results up to 26 inches. But, at 28 inches significant differences appeared. Furthermore, he found little difference between 28 inch results and the results at higher depressions. After verifying a correlation between his 28 inch flow bench results and power on the dyno, from then on he used 28 inches as his standard depression.

Given Smokey's influence this seems the likely origin of these practices. It may be that there is another explanation. If there is, I'd like to hear it.

Dynomation for Windows

Normally, we don't like to announce new products before they are ready. We have had so many inquiries about a Windows version of Dynomation, that we are making an exception. Dynomation is the only program which we sell that we do not own. Audie Technology did the programming for the DOS version, but another company owns it. That company that owns it tells us that they are working on the Windows version, which should be released sometime in 2004. The new program will include new features and abilities (it's not just the same as the DOS program, but in Windows). Audie Technology will sell the new program. Pricing and packaging has not been determined, but owner of the DOS program will be able to upgrade at less than the new program's list price.

Blueprints for Flow Quik Air Supply

In response to numerous requests we have prepared an illustrated set of instructions and plans for building an air supply and test plenum for Flow Quik. The package includes blueprints, cutting diagrams, parts list, and illustrated instructions.

Jamison Equipment Sells Flow Benches

Jamison Equipment is importing Saenz Flowbenches for distribution across the United States. Five models are currently available. Three are manually controlled, two are fully computerized. The Flow Pro system is integrated into the fully computerized benches, and is an option on the manually controlled benches.

The S-250, S-400 and the S-600 make up the manually controlled flowbenches. All of these models have two vertical manometers, one is for use with the inclined manometer (depression) and the second is for use with optional pitot tubes. All are constructed of 3/4" thick double phenolic panels with a high-pressure laminate finish.

The S-250 has two 30" vertical manometers and a 6" inclined manometer. Four 220-volt vacuum motors give the S-250 a capacity of 250 CFM at 28" of water. This benchtop model is aimed at the small engine market.

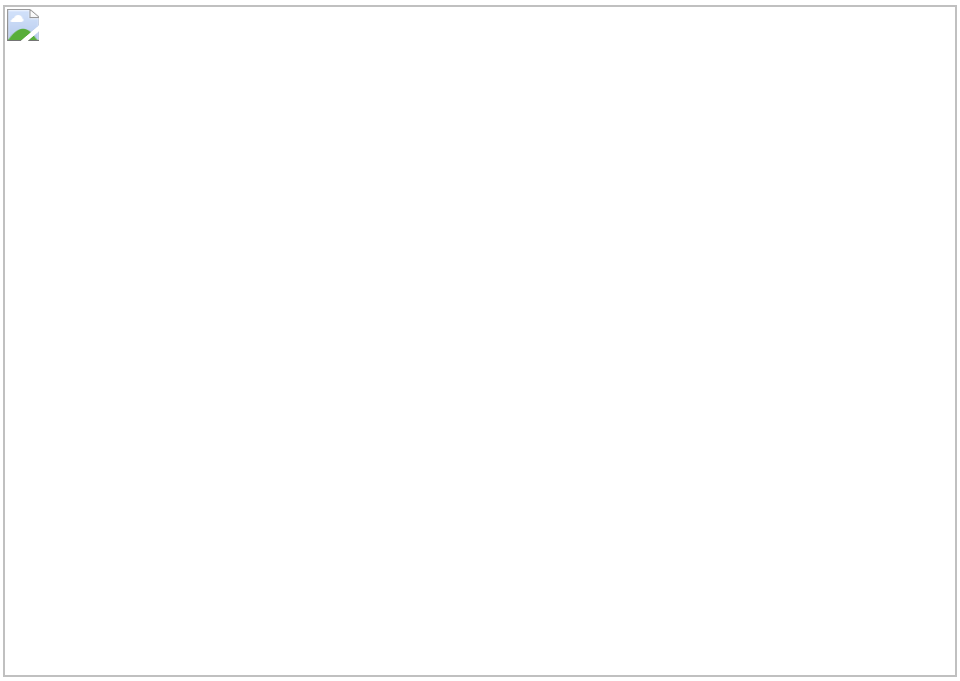
The S-400 has two 40" vertical manometers and a 6" inclined manometer. Seven 220-volt vacuum motors give the S-400 a capacity of 400 CFM at 28" of water. This full size floor model is suited for the high-end motorcycle, snowmobile, personal watercraft and small automotive head porting.

The S-600 has two 48" vertical manometers and a 14" inclined manometer. Nine 200-volt vacuum motors give the S-600 a capacity of 600 CFM at 28" of water. High performance engine builders prefer this model for its higher capacity.

The J-600 & J-1000 Flowbench series fully automates the flow testing procedures. The use of computerized testing greatly reduces the time to test a set of heads. Along with the reduced time there are many other advantages, such as improved accuracy, flow & other measurements are automatically recorded at each lift, automatic CFM calculations and interactive graphs that allow tests & data curves to be added or removed with the click of the mouse. Test data curves can be viewed on powerful interactive overlay able line graphs.

Wet Flow Project

Audie Technology was pleased to provide data acquisition and control for a custom wet flow bench built by Lloyd Creek, Mondello/CFM, Inc.,that is now in use at Dart Machinery in Troy, Michigan. This monster of a bench can flow 800 CFM at 55 inches. Two centrifugal fluid separators and three 10 HP explosion proof vacuum motors power the bench. Flow Pro software and hardware are the heart of the data acquisition and control. Special hardware was designed for maintaining Air/fuel ratio and controlling the three phase vacuum motors. This bench is so large it had to be assembled on-site. It stretches the full length of Dart's dedicated flow bench room.



Disclaimer

If you do not want to receive this newsletter, please contact us at remove@audietech.com and ask to be removed from the list.