



# R.L. Laughlin & Company, INC

The Gas Grabber

December, 2008

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### [New Fabrication Shop Opening](#)

The R.L. Laughlin Fabrication Shop was established in January of 2006 at the company headquarters in Charleston, WV. The Fabrication Shop has out grown the company headquarters and has been relocated to a building in Saint Albans, WV. In the three short years of operation the Fabrication Shop has been able to produce over 500 two-inch meter tube assemblies. The

R.L. Laughlin Fabrication Shop is committed to producing a quality product in a timely manner with strict standards. Customer satisfaction is one of our highest priorities. Our meter tubes consist of DOM tubing that meets the ASTM A513-06 Type 5

requirements along with a battery of other tests. The fitting we use in our meter tube assemblies vary due to the customer's request or preference of a certain brand over another. Each fitting is aligned using an inside self-centering alignment tool with  $\pm .003$ . We use the GMAW welding process to connect the fittings to the tubing. Our welds are visually, ultrasoniced, and HYDRO tested to meet AGA standards. Both the upstream and downstream sides to the orifice plate are honed back

into tolerance after welding. Every meter tube assembly is measured according to AGA specification using a micrometer and recorded on an inspection sheet. After each meter tube assembly has passed all of its inspection criteria it is then thoroughly cleaned and primed with an industrial oil based primer or whatever the customer requests. Finally the meter tube

is fully assembled and serial numbered for accountability purposes. There will also be a packet of information that will accompany each run describing its parts, material makeup, and copies of all test and measurements. Here at R.L. Laughlin Fabrication Shop we take a sense of pride in our work and expect nothing but the best in our quality. Our employees are highly trained and skilled in their perspective jobs. We



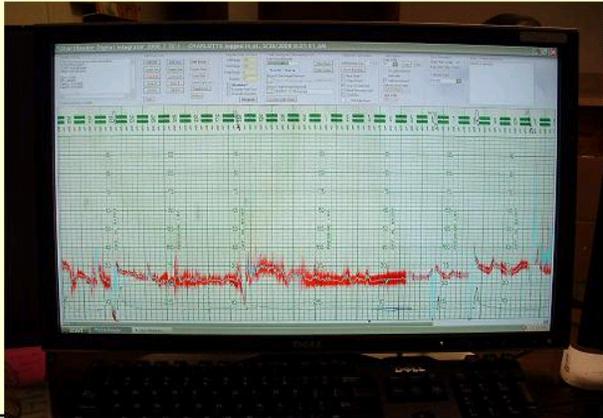
 R. L. Laughlin & Company, Inc.  
Gas Measurement Consultants

## ELECTRONIC CHART INTEGRATOR



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have the capabilities to meet out customer's needs and the desire to do so. Stay Safe!

### New Gas Analysis Lab in Bolivar, Ohio

R.L. Laughlin & Company is pleased to announce the opening of their Gas Analysis Lab in Ohio. The lab offers quick turn around and in the filed sampling services. Bring in your own samples or we can get them for you. The lab is operated by Jim and Holly Matthews, and located at: 1685 North Orchard Bolivar, Ohio 44612 Phone: (304) 776-7740 Mobile (304) 545-0318 The full spectrum of Gas Analysis and Gas Measurement Services are available through the Ohio Lab and the Main Lab and Offices in Charleston, WV VISIT US ONLINE AT: [WWW.RLLCO.COM](http://WWW.RLLCO.COM)

### Electronic Integration

Today's technology enables many of us to perform routine tasks more quickly. We can get our emails on a hand-held device without being in the office, we can email photographs and documents and we can take pictures with our cell phones. We keep getting closer and closer to a "paperless" office environment. We can poll remote electronic flow meters and drive down the road and collect data. Computers can talk to us and vice versa. And, applying some of the above-mentioned techniques, R.L. Laughlin & Co., Inc. has developed a computer program to ELECTRONICALLY INTEGRATE CHART IMAGES. Using document imaging techniques, we "take photographs" of charts and store the images at a very high-resolution rate. A computer program then analyzes the "picture" to identify the pressure and temperature lines to produce the data needed to calculate MCF's of gas. In other words, the program performs the same process that an operator and an integration machine would but electronically! For those of you interested in the numbers, the program analyzes, identifies and stores data on 2.2 million individual pixels for each chart. It takes 2,500 "slices" of each chart image. A manual integration machine takes 1,000 "slices" of each chart. This data gets aggregated to provide the necessary information needed for the MCF calculation. Throughout the development life (2 years) of this computer program we call "2500 H-L Electronic Integrator" many charts have been analyzed and compared against the manual integration method. Benchmark charts have been identified and used to check the "calibration" of the chart images daily. This is a quality control step to ensure the integrity of the program and the results. Hundreds of man-hours have been spent to provide the most accurate and repeatable results using the 2500 H-L Electronic Integrator program. Our goals are to provide our clients with:

- 1) Accurate Results
- 2) Repeatable Results
- 3) Quick Turn Around
- 4) And Quality Customer Support!

An additional benefit of document imaging charts is they can be viewed via Laughlin's web site. With proper credentials (User ID and Password) meter, volumetric data and chart images can be seen over the Web. R.L. Laughlin & Co., Inc. has long been recognized for their Honesty, Quality and Integrity. By adding this new technology to our service offerings, we have become the TECHNOLOGY LEADER in our industry! For more information, contact Charles T. (Tom) Hunter at 304-776-7740 or [Tom@Rllco.com](mailto:Tom@Rllco.com)