Amada Press Brake is added to RCBI’s equipment arsenal

With manufacturers across the Tri-State region of West Virginia, Ohio and Kentucky expressing a growing need to form and bend sheet metals, RCBI has responded by adding an Amada 88-ton High Precision Electric/Hydraulic CNC Press Brake to its complement of specialized equipment at the RCBI Advanced Manufacturing Technology Center in Huntington.

The press brake is an ultra-high precision bending machine, and its advanced hydraulics provide the ultimate in positioning accuracy. The computer-controlled system is used to change the shape of sheet metal that’s up to a quarter-inch thick by applying direct pressure with a punch and pressing the metal material into the proper shape with the help of a V-shaped die.

The length of the raw material that can be accommodated by the system will determine the thickness that can be shaped by it, explains Brian Brown, Senior Manufacturing Engineer and Site Manager at RCBI Huntington. He says the shorter the length of the metal, the thicker the metal that the Amada will shape can be. For example, if it is shorter than 51 inches in length, the system will bend metal that is up to a quarter-inch thick. And 96-inch length metal is the longest material that this press brake will accommodate because of its 8-foot bed length.

The Amada at RCBI features a Hybrid Drive System, an advanced design that offers quick setup, high-speed operation and increased throughput. Its super accurate, high speed 5-axis backgauge reduces positioning time and easily handles staging of complex parts. Another of the benefits of this particular system design is its low noise level.

Examples of the type of work the press brake can perform include brackets, electrical boxes, high-voltage vacuum sealed electrical disconnect boxes and assorted frame pieces. With the use of its CNC controls, the machine can form parts with an accuracy of a thousandth of an inch.

For more information about the Amada Press Brake or to schedule use, contact RCBI’s Brian Brown at 304-781-1689 or 800-469-RCBI (7224).
Innovation is the name of the game in today’s manufacturing

By Charlotte Weber

Reports of the death of American manufacturing are greatly exaggerated. The nation’s newspapers, magazines and TV news reports keep offering obituaries for manufacturing. But millions of American workers don’t have time to read or listen to those death notices. They’re too busy going to work every day, continuing to turn out the 1,001 products that are still made in America.

Yes, modern technology has vastly increased productivity for American industry, meaning that many of today’s products are produced in less time by fewer workers. Yes, many American manufacturing jobs have disappeared as a result of foreign competition, often under adverse and unfair conditions. Yes, many more manufacturing jobs have been outsourced to foreign factories.

Those trends are real – and they aren’t going away. There’s no turning back the clock. But even in the face of the multiple threats that confront it, American manufacturing isn’t just surviving, it’s thriving.

In a welcome departure from the usual news diet of gloom and doom regarding manufacturing, a recent Associated Press article reported that the United States remains the world’s No. 1 manufacturer.

As the AP article explained, what has happened is that American manufacturing is “moving upscale,” concentrating on high-end items. Many consumer goods now come from overseas. America, for example, once made 98 percent of its shoes. We now import more than 90 percent of our footwear. But “Made in USA” is still stamped on a wide array of big-ticket items, from farm equipment to turbines for power plants, from computers to construction equipment, from autos and auto parts to aircraft, missiles and spacecraft.

The bottom line: Manufacturing remains the powerful engine that drives the U.S. economy.

This, of course, doesn’t mean we can afford to rest on our laurels. In today’s fast-paced world, those who are complacent are those destined to fall by the wayside. American manufacturers, if they’re to be successful today, must learn the new rules of doing business in a marketplace where your toughest competitor may not be on the other side of town, or even in another state, but literally halfway around the world.

Those manufacturers that stay in the game are able to do so because they’re turning to new strategies. They’re retraining their workers, they’re employing lean manufacturing, just-in-time supply chains and rigid quality. And they’re innovating.

Innovation has been and remains the hallmark of American manufacturing, and our scientists, engineers and technicians continue to generate an amazing number of new and better products with worldwide appeal.

Ultimately, innovation is the name of the game in today’s manufacturing. When the chips are down, the companies with the winning hands will be those that focus on innovation.

And that’s where the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) plays an important role. At our statewide Advanced Manufacturing Technology Centers – in Huntington, Charleston, Bridgeport and Rocket Center in the Eastern Panhandle – manufacturers have access to state-of-the-market production equipment, new technologies, machinist training, quality certification and other initiatives aimed at helping them keep pace in today’s fast-changing world.

With our unique blend of industry-focused offerings and technical assistance, RCBI stands ready to assist manufacturers as they continue to innovate, succeed and grow.

Charlotte Weber is director and chief executive officer of RCBI. To learn more, visit www.rcbi.org.

A Closer Look

Here is a closer look at a member of the RCBI family

NAME: Paul Beatty
NATIVE OF: Warren, Ohio
MARITAL STATUS: Widower
CHILDREN: Two daughters, Jennifer and Stephanie
SCHOOLING: B.S. in Mathematics from West Virginia University, M.A. in Higher Education Administration from George Washington University
LENGTH OF SERVICE AT RCBI: Since 1998
JOB TITLE: Senior Manufacturing Engineer and Site Manager (RCBI Bridgeport)
FIRST CAR: ’61 VW Bug

SOMETHING THAT’S ALWAYS IN MY REFRIGERATOR: Orange juice
FIRST JOB: General laborer at Chevy dealership in Weirton, W.Va.
FAVORITE MEAL: BBQ ribs
I WILL NOT EAT: Coconut
BEDTIME: 11 p.m.
HOBBIES: Camping, fishing, hunting and hiking
FAVORITE CANDY: Hershey’s bar with almonds
FAVORITE VACATION SPOT: Camping in the mountains
IF I WON THE LOTTERY, I WOULD: Travel

Beatty
Bernard Wilson Jr., Arley Carpenter and Martin Spears have been selected as RCBI Employees of the Month for November, December and January, respectively.

Bernard Wilson Jr.

A resident of Worthington, W.Va., Wilson is a machinist technology instructor and CNC machinist at RCBI’s Advanced Manufacturing Technology Center at Bridgeport, W.Va. He joined the RCBI staff in 2006.

“With years of extensive training and meaningful career experiences, Bernie Wilson is an extremely capable member of our staff,” RCBI Director and CEO Charlotte Weber said. “He has a ‘can do’ attitude that is reflected not only in his work with our clients but also with the students he trains to become highly qualified machinists.”

A 1993 graduate of Lincoln High School in Shinnston, W.Va., Wilson completed his Machinist Technology Program training from RCBI in 2000 and finished work toward an Associate in Applied Science degree from Marshall Community & Technical College during the 2008 Fall Term. He holds all seven individual certifications offered by the National Institute for Metalworking Skills (NIMS).

Before joining RCBI, Wilson worked four years as lead explosive machinist and two years as a composite specialist at Alliant Tech Systems in Rocket Center, W.Va. From 1995 to 2000 he was a machine operator, using both manual and CNC (computer-numerical-controlled) equipment, for UCAR Carbon Co., Inc., at Anmoore, W.Va.

Wilson and his wife, Michelle, are the parents of a son, Jacob, 11, and daughter, Kira, 2. His interests include hunting, fishing and camping.

Arley Carpenter

Carpenter, who lives in Nitro, serves as RCBI director of manufacturing services, working out of the Advanced Manufacturing Technology Center in South Charleston.

Prior to joining RCBI in 1997, Carpenter served four years as general manager of Mountaineer Archery, Inc. in Huntington where he introduced CNC (computer-numerical-controlled) machining to the manufacturing of compound bows.

Martin Spears

Spears, who is based at RCBI’s Advanced Manufacturing Technology Center in Huntington, is an associate director of public information and senior technical report writer.

A 1985 graduate of Fort Gay (W.Va.) High School, he earned Bachelor’s and Master of Arts degrees in journalism from Marshall University. After graduation, he worked for a year in the natural gas transmission field. He has been employed by RCBI the past 15 years, providing public information assistance to the director’s office.

Spears, who resides in Huntington, is responsible for preparation of reports that detail technical assistance efforts provided to manufacturing clients of RCBI. He also is involved in developing informational material, primarily for external audiences, and serves as an associate publisher of the RCBI magazine, Capacity.

“A Marty Spears wears many hats for RCBI and wears them well,” Ms. Weber said. “His work in preparing technical reports for the federal agencies with which we work is particularly important and a key to RCBI’s ongoing success.”
Andrew S. Lau, composites intern, poses with a model of the X-33 Advanced Technology Demonstrator for Lockheed Martin's VentureStar program. The model is now on display at the RCBI Composites Technology & Training Center at Bridgeport, W.Va. The VentureStar was Lockheed Martin's proposed design for a single-stage-to-orbit reusable launch system. The program's primary goal was to develop a reusable unmanned space plane for launching satellites into orbit at about one-tenth the cost of other systems that would completely replace the Space Shuttle. It was designed to take off vertically and land like an airplane. Although the design was eye-catching and innovative, the program finally was cancelled following problems encountered in the technology demonstrator. The model had been on display at North Central West Virginia Airport in Bridgeport but officials there sought a more permanent home for it. Because RCBI serves the growing aerospace industry in West Virginia it was decided the Composites Technology & Training Center would be a natural fit as a home for the model.

**Our Mission**

The Robert C. Byrd Institute for Advanced Flexible Manufacturing provides statewide and regional access to advanced technology and technical training to small- and medium-sized manufacturers. The mission of RCBI is to develop a quality, just-in-time, supplier base for the Department of Defense, the National Aeronautics and Space Administration and the commercial sector.