



H. E. Orr Expands Tier One Capability with CNC 3D Wire Bending

With the addition of a new Automated Industrial Machinery (AIM) 3D-12T CNC wire forming workstation to their plant floor, H. E. Orr is positioned for increased flexibility and efficiency in producing finished condition wire forms for OEM customers.

“This machine is a real game changer for the H.E. Orr Company wire bending customer,” states President, Greg Johnson. “We are now more responsive to our customer base, have the ability to provide a better return on investment, can increase quality levels while reducing waste and are far more flexible on specification changes and specialty runs.”

How CNC wire forming makes H. E. Orr a more responsive supplier:

1. Quick response to OEM changes.



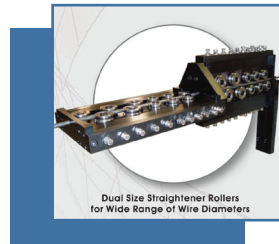
OEMs often make design changes during the development of their products which may require extensive tooling changes that could require long lead time. Because the 3D-12T is a CNC operation, it can be switched to another program or specification quite quickly. Concurrent operation with dual processing even allows programming a new part while continuing to run production. This enables the machine to easily change from one type of wire form to another rapidly and with reduced set-up and change-over time and costs.

2. Reduced hard tooling costs.



Previously, if the size and scope of a specific part made a dedicated bender cost-effective, the H.E. Orr engineering and tooling team worked to construct equipment to meet the customer's specification. If the volume was smaller, a punch press and tooling system was often more cost-effective. With the implementation of the new 3D-12T CNC workstation, part-specific tooling is no longer required. With up to 32 axis motion, the machine takes wire directly from a coil, straightens it, bends it, and cuts it to create any profile needed with minimal tooling changes.

3. Increased quality with less waste.



Because the wire forming operation is computer controlled, operator fatigue and human error are reduced, which result in a dimensionally consistent, high quality product. The data set loaded into the control software also allows bending operations to be virtually tested prior to production, eliminating waste due to crashes and non-conformance to print—reducing both set-up time and costs.



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4. Built-in flexibility and short run capabilities.



The addition of the AIM 3D-12T CNC wire forming machine to H. E. Orr's equipment list allows us to produce any part when you need it, in quantities from five to fifty thousand and in size ranges from 3mm high tensile to 12mm mild steel. Multiple variations in one run with no tooling changes and the highest overall production speeds in the industry along with short lead times and low tooling costs guarantee success.

"At H.E. Orr, we are very proud of producing six million wire formed parts annually for some of the largest automotive OEMs on the planet," states CEO and Owner of H.E. Orr Company, Donna J. Garman. "This is quite an achievement, but we know we can always improve. With the addition of the Automated Industrial Machinery AFM-3D12-T, we are positioned for additional growth through increased production capability, faster turns and greater quality at a more competitive price."



H. E. Orr Adds Capacity and Flexibility with New CNC 3D Wire Bending Workstation to Complement Its Full Range of Wire Forming and Coating

As a tier one OEM supplier, H.E. Orr produces over six million wire form parts each year, including hood stays and kitted accessory packages for top automotive manufacturers. With the addition of an AFM-3D12-T Accuform workstation from Automated Industrial Machines (AIM), H.E. Orr has dramatically increased both capacity and flexibility in serving OEM customers.

The critical aspects for a successful wire forming operation are efficiency and precision. Producing products made to the correct specifications while maintaining the highest quality, doing it just in time, and at the most competitive price is critical to serving the OEM customer base. H. E. Orr believes

they can exceed customer expectations and CNC wire forming now fills a key element in the plan.

Starting with in-house engineering and a deep understanding of customer specifications, careful analysis helps determine the most cost-effective way to produce the parts you need. When working with customer-supplied drawings or designing the part on our CATIA or Auto CAD systems, quality and efficiency are our primary goals.

The 3D programmable CNC steel wire benders make virtually any kind of simple or complex parts from round and flat wire.

The machine is easy to change from one type of wire form to another rapidly and with reduced set-up and change-over time and costs.

Using AIM's SmartEditor program, H.E. Orr can produce different shapes easily, and achieve standard shapes such as rings, polygons and spirals by simply entering the desired lengths, number of sides or diameters. DXF files are imported from the CAD system. Animation Simulation shows the part being formed before production begins allowing changes to be made prior to machine operation.



Reduce Suppliers by Consolidating Wire Forming, Bending, Coating and Kitting Services at H.E. Orr Company

But H.E. Orr is more than just wire forming. When you bring your business to us, you are using a one-stop supplier, which can take your OEM parts from concept all the way through to an assembled and kitted product ready for the production floor.

- **Design and quality control.** Orr's team of engineers and quality control experts use the latest CAD software for design and documentation. We also work with you to achieve the salt spray results your application requires.
- **Wire drawing.** H.E. Orr buys raw materials directly from steel mills, eliminating the middle man. We then draw the wire to the exact specifications needed, keeping a tighter control on tolerances and quality.
- **Hot upset forging.** Forming parts through hot upset forging produces stronger parts than an equivalent cast or machined part.
- **Cold forming.** Cold forming machines are available to make simple and complex shapes for a wide variety of applications.
- **E-coating and powder coating.** H.E. Orr operates both e-coating and powder coating on the same production line. Every part gets e-coated prior to being powder coated providing an extra level of protection.
- **Sub assembly and kitting.** H.E. Orr has invested in the equipment required to install rubber hoses or plastic parts to the finished wire form quickly and efficiently. The finished parts are placed into a supplied package, which is then shipped to your facility.



Most OEM manufacturers require that suppliers adhere to strict technical specifications laid out in a quality management standard for suppliers to the automotive sector, known as ISO/TS 16949. Additionally, ISO 14001 addresses various aspects of environmental management including proper labeling, performance evaluation, life cycle analysis and communication and auditing. H.E. Orr holds certification in both ISO/TS 16949 and ISO 14001.

H.E. Orr is certified by the Women's Business Enterprise National Council (WBENC) as a woman-owned business. Donna J. Garman has been the majority owner and CEO of H. E. Orr Company since 2006 and co-owner since 1993.

H.E. Orr is also a member of the Powder Coating Institute (PCI) and is in the process of PCI certification.



Member of



**Powder
Coating
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Services and Contacts

Founded in 1957, The H.E. Orr Company is a world-class organization with a reputation built on superior quality, on-time delivery, competitive pricing and technical expertise. H.E. Orr practices cellular manufacturing utilizing the best of both past and state-of-the art technology:

- E-Coat Painting
- Wire Forming
- Cold forming
- Metallurgical lab
- Coordinate Measuring Machine
- Powder Coating - Top coat
- Hot upset forging
- Wire drawing
- CAD/CAM

A diverse product line serving the automotive, agricultural and a variety of other industries.

- Wheel Wrenches
- Accessory Tools
- Tillage Tools
- Automotive Tool-kits
- Hood Stay Assembly

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*H.E. Orr meets
customer specific needs
with personal attention*



*Parts entering the
powder booth system*



*Wire Forming Hood
stays for major auto
manufacturers.*



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