## **3D Parts from a 2D Machine**

by:

Martin Smith, Sales Director Ultimation Machines Limited Laundry Way Industrial Estate Capel, Surrey RH5 5LQ UK www.ultimat.com Three new variants of a standard and successful modular line of wire forming and welding machines provide the user with the ability to make a wider range of parts with increased levels of complexity.

Following the successful launch of the *ultimat* range of 2D wire forming and welding machines last year, Ultimation Machines has continued its development of the range and has developed several new variants on the standard *ultimat* models in 2003.

The *ultimatumw-65x* is an extended version of the standard *umw-65* and is suitable for frames up to 48" x 48" (1200 x 1200 mm) in a wire range of 0.080" to 0.255" (2.00 to 6.50 mm). It is suitable for the production of butt-welded rings, ovals, frames and non-welded 2D wire forms including spirals.



The "mini" bend head is used on two of the new variants of the Ultimation wire forming and bending machine line.

The *ultimat umw-65t* is a twin-head version of the standard machine, incorporating an additional smaller high-speed "mini" bend head for forming loops and eyelets and other components with tight complex bends.

The latest model to be developed

is the *ultimat umw-65z* which incorporates one or more additional servo-driven "mini" bend heads that can be fitted in either the horizontal or vertical plane. This new feature, together with the new part manipulator, which incorporates a rotating wrist joint, allows both two and three-axis components, with tight loops and forms at both ends, to be manufactured on the machine as well as welded closed components. The part manipulator can also be used to unload both welded and non-welded parts from the machine and place them into a suitable container or onto a rack or cart.

All of these variants are available across the range of machines from the *umw-40* through to the *umw-160*. Because of the *ultimats'* modular construction, they can be retrofitted at a later date.

The *ultimat*range of machines incorporates many unique features that are not available on other 2D wire forming machines. These include, a "closed die" forming and cutting system which gives a high quality square, burr-free cut and butt weld. Modular construction allows the machine capacity to be increased and additional features to be added at a later date.

All models are available in a standard vertical or upright version, a horizontal or tabletop version as well as a hinged tabletop version to operate in a vertical or horizontal position with butt welding.

Further options include additional multiple bend heads for high-speed production of complex wire forms, press tools, drilling and chamfering stations. The *ultimat* models can also be configured to form flat and shaped wire as well as round wire.

With models available for a wire range from 2.00 to 16.00 mm (0.080" to 0.63"), Ultimation has a machine to suit everyone's requirements and budget. Ultimation's USA-based agents are **John Manning** of **Penn Machinery Company**, Flourtown, PA, USA and **Scott Liebenberg** of **Clifford Machinery Inc.**, Russell-ville, KY, USA.

For a CD and information pack, contact the author, an agent or **Circle 203**.

The standard, modular *ultimat umw* line is now available in three variants: extended (x), twin head (t) and two and three axis forming (z). These variants are available for any size *ultimat* machine: *umw-40* through *umw-160*.

