



DATE:	6/18/07
TO:	
FROM:	Craig W. Derosby, Formtek-Maine Sales Engineer
SUBJECT:	Heavy Duty Compact Cut-to-Length System
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Blount Canada, a leading manufacturer of chain, bars, and sprockets for the industrial cutting tool industry, was looking for a new cut-to-length system to increase production of HSLA up to 0.437" thick and cutting it into sheets for further processing. The solution: a CWP heavy gauge compact cut-to-length system.

The customer's requirements called for a system to process 40" wide coils of high yield material up to 65,000 psi, ranging in thickness from 0.048" to 0.437" with a weight capacity of up to 20,000 lb. The system needed to be able to remove coilset in the material over the full range of thicknesses to an acceptable degree, as the cut sheets needed to fit under their laser cutting device.

To add to this, the customer already had four identical lines of competitive equipment in house that were running similar product. They were producing satisfactory parts, and although the customer was happy with the overall performance of these lines, his maintenance crew had to perform many modifications to the equipment over the years. The new equipment had to incorporate the customer's new ideas and preferences as well as perform on par with the existing equipment.

The equipment provided to meet these requirements is a 40" wide heavy gauge compact cut-to-length system, including a high capacity cradle-straightener-feeder combination unit and a heavy duty hydraulic powered cutoff shear with runout conveyor.

The coil cradle is incorporated into the combination unit and has capacity for coils up to 20,000 lb. with a maximum O.D. range of 72". The cradle utilizes a coil catcher and peeler assembly to control the leading edge of the material for thread-up into the straightener head. Features such as powered adjustment on the confining plates, guide rollers in the confining plates, and a cut-away at the back of the unit for easier loading of coils into the cradle unit make coil loading and thread-up easier and more efficient.

The model HD 86 series combination straightener-feeder provides the ability to effectively straighten the customer's high yield material at thicknesses ranging from 0.048" up to 0.437". This is accomplished with 6" diameter straightening rolls, all fully backed-up to prevent roll flexing. The straightener-feeder is equipped with a hydraulic powered debender system for ease in threading up the heaviest of materials. Roll depth adjustment, pinch roll actuation, and actuation of the debender unit are powered by large bore hydraulic cylinders. The unit utilizes the four 8" diameter chrome-plated pinch rolls to feed the material to length. The rolls are gearbox-driven for superior accuracy.

Formtek Maine • 76 Hinckley Road • Clinton, ME 04927 Tel. 800-247-2645 • Fax: 207-426-8868 The feed control is equipped with 500 job storage capacity, full diagnostics and job status screens, and an in motion micro adjust feature for "on the fly" adjustments to part lengths in steps of .001". The system has RS232 downloading capability custom engineered and programmed to communicate with the customer's existing Amada laser system.

Our "consolidated system control" package is provided with full color touchscreen controls and solenoid operated pushbutton controls for thread-up and operation of the system. The interface provides complete operator prompting of threading procedures, a maintenance schedule with service points for the entire system, on-screen digital roll position readouts, and in-depth diagnostic fault messages with recommended remedies.

The cutoff shear is powered by 10" bore hydraulic cylinders to cut the heavy material this line is required to process. A rake-type shear blade is utilized at the customer's request to minimize material distortion during the cutting process. A roller type runout table is located at exit of the shear and is equipped with a set of four pinch rolls to hold the sheet in position for the cutting process. The conveyor surface is comprised of powered rollers to transfer the cut sheet to the next process.

The system is currently in production and is out-performing the customer's expectations.

For questions or comments, feel free to contact Formtek Maine at **1-800-247-2645**, or visit <u>www.cwpcoil.com</u>.

