

NEWS RELEASE

All Metals Installs Cassette Leveler Multi-Blanking Line

Spartanburg, SC – All Metals Service & Warehousing, Inc, a multi-facility toll coil processor headquartered in Spartanburg, SC, has installed a high-performance Braner/Loopco “Cassette” Leveler Servo Feed Cut-to-Length/Multi-Blanking Line in its flagship Spartanburg coil processing plant. The new line converts 60,000# x 72” wide ferrous and non-ferrous surface-critical coil in gauges from .028” through .135” into laser quality panel-flat sheets and close-tolerance precision blanks. All Metals’ new Multi-Blanking Line, capable of producing full width sheets, side-trimmed sheets, and simultaneously multi-blanking up to five (5) close-tolerance blanks, is equipped with a Computer Controlled Hydraulic Cassette Leveler, Precision AC Servo-Feed, and a variable speed DC Shear capable of generating close-tolerance parts at production rates exceeding 80-strokes/minute.



60,000# x 72” x 135% .028” Hi-Performance Cassette Leveler-Servo-Feed-DC Shear CTL/Multi-Blank Line



Entry Table efficiently threads coils from the Uncoiler into the Cassette Leveler. Pushbutton adjusted Side Guides present the strip on the Leveler centerline. A Hydraulic Guillotine Shear crops heads and tails from the master coil and deposits the sheared scrap into a Scrap Cart.

Hydraulic Cassette Leveler: A “Cassette” Leveler allows All Metals to produce laser quality panel-flat parts throughout a wide gauge and product range. Microprocessor controlled hydraulic work roll positioning cylinders are contained within the massive 4-post Leveler frame into which quick-change Cassettes are installed. The exchangeable Cassettes contain all the working Leveler parts...work rolls, back-up flights, and universal drive shafts, in a common Cassette housing. Cassettes are powered in and out of the Leveler frame by pushbutton. Cassette back-up flights are automatically aligned with the hydraulic back-up cylinders. The work roll drive shafts are automatically engaged with the Leveler gear drive as the Cassette is installed. A microprocessor controller automatically accomplishes initial Leveler set-up based upon operator entered coil gauge and yield strength mechanical properties. All Metal’s Cassette Leveler employs 18-independent hydraulic cylinders rather than AC motors, gear reducers, sliding wedges, and jack screws to accomplish Leveler adjustments. Precision

electronic linear transducers achieve precise cylinder positioning. Seven (9) hydraulic cylinders installed at the entry, and seven (9) hydraulic cylinders installed at the exit end of each back-up flight are independently adjustable. Adjusting the entry end and exit end cylinder elevations causes the work rolls to be “tilted” front-to-back for coil-set correction. Adjusting cylinder elevations across the work roll face accomplishes “roll-bending” for precise edge-wave and center-buckle shape correction. Hydraulic Leveler benefits include: Elimination of mechanical screw-wedge maintenance; Automatic Leveler set-up; Order set-up parameters retrieved from computer memory; and 5-minute automatic Leveler calibration.



Precision Microprocessor Controlled Hydraulic Cassette Leveler Operating with 1.750” x 5-Hi Cassette

All Metals’ Hydraulic Cassette Leveler is designed to utilize 1.750” x 4-Hi and 5-Hi, 1.500” x 4-Hi and 6-Hi, and 1.250” x 4-Hi and 6-Hi interchangeable Cassettes. The ability to quickly change work rolls and back-ups allows All Metals to process oiled carbon steel and critical surface non-ferrous coils one after another with virtually zero time lost to Leveler roll cleaning. Cassettes are exchanged Cassettes in minutes.



All Metals’ Hydraulic Cassette Leveler Produces Laser Quality Panel-Flat Strip. Cassettes can be power exchanged in a matter of minutes.

Pushbutton Tooling Lock Turret Head™ Slitter: Precision multi-blank slitting to 0.0020” slit width tolerance is accomplished with a quick-change Turret Head™ Slitter fitted with Braner/Loopco’s “Pushbutton Tooling Lock-Up” feature. Slitter set-ups for multi-blanking or side-trimming are made in 15-minutes while the line is running, which virtually eliminates production down-time related to making slitter set-ups. The Turret Head™ Slitter head is pushbutton withdrawn from the line when producing mill edge sheets. The Turret Head™ Slitter offers “Bullet-proof reliability” and no time lost related to Slitter set-ups.

Precision Electronic Servo-Feed: All Metals’ Multi-Blanking Line employs a reliable high-cyclic rate precision AC servo to feed and meter strip to precise length tolerances. The Servo-Feed draws the leveled strip from a free-loop and feeds the strip through the



Turret Head™ Slitter set-ups are accomplished while the line is running, eliminating set-up down-time. The Turret Head™ is simply withdrawn from the line when producing full width sheets.

Shear to a pre-set length. Part length is precisely metered by an electronic encoder while a microprocessor automatically establishes ideal acceleration/deceleration rates. Length and batch count are easily entered into the digital operating system. Servo Feeds compare favorably to "reciprocating mechanical hitch feeds" in productivity and reliability. Grabbing, releasing, sliding backwards, and re-grabbing consumes the majority of a reciprocating hitch feed's cycle time. By comparison a Servo-Feed drives one-way and has few moving parts that require repair and replacement. The Servo-Feed's quick rotary operation, low acceleration/deceleration shock load, few moving parts with an absence of chains, screws, clamps, and related mechanical parts results in consistent close-tolerance accuracy, low operating cost, and "bullet-proof" reliability.



In addition to the Servo-Feed's quick cycle rate, it employs an instantaneous "pull-back" sequence that pulls the strip away from the Shear blade during the shear cycle. The pull-back sequence is an important feature for preventing shear blade scuffing.

Hi-Performance Variable Speed Bow-Tie DC Shear: A massive top driven variable speed DC motor driven Shear is utilized for part cut-off. The high-performance Shear is capable of producing pattern length sheets in a 60-stroke/minute "clutch-brake" mode, and shorter multi-blank parts in an 80+ stroke/minute non-stop "con-

tinuous-stroke" mode. Synchronized with the Servo-Feed, the continuous non-stop shear cycle offers unrivaled productivity performance. The DC motor driven crankshaft runs non-stop, synchronized with the Servo-Feed cycle when the Shear runs in the "continuous-stroke" mode. The pull-back and feed sequence begins as soon as the upper shear blade severs the strip on its down stroke. The continuous-stroke mode allows the strip to be fed forward while the Shear ram is traveling up. The feed sequence continues well past Shear top dead center and stops when the shear blade approaches the strip on the down stroke. The continuous-stroke Servo Feed-DC Shear cycle expands the feed forward window and results in a production rate much higher than a conventional start-stop feed-shear mode.



Massive Hi-Performance Continuous-Stroke DC Bow-Tie Shear Offers Unrivaled Production Performance



The Variable-Speed Bow-Tie Shear operates in an 80-SPM continuous-stroke mode while cutting 5-multi-blank strips.

Programmable Multi-Blank Stacker: The Multi-Blank Stacker features full automatic set-up via microprocessor controlled AC servo motors. The automatically positioned multi-blank blank dividers produce "solid-block" straight-sided single sheet and multi-blank packs. A pushbutton initiated part "reject" system kicks-out sheets and blanks that fail All Metals' quality standards.



Precise tolerance panel flat parts, solid-block sheet packs, extreme hi-performance, plus *bullet-proof reliability* made All Metals' choice of a Brainer/Loopco Cassette Leveler-Servo Feed-DC Bow-Tie Shear Cut-to-Length/Multi-Blanking Line a "no-brainer".



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