

NEWS RELEASE

Reliance MetalCenter Produces Laser Flat Sheet w/ New Hydraulic Cassette Leveler & Servo Feed System

Salt Lake City, UT – Reliance MetalCenter has completed a major upgrade of its 50,000# x 72" x 5/16" Cut-to-Length Line in Salt Lake City. The objective for the extensive equipment upgrade was to improve productivity and performance, and improve Reliance MetalCenter's ability to satisfy its customer's requirements for panel-flat laser quality high-strength sheets in gauges from .028" through 5/16". The line upgrade included a new computer controlled 300 HP "plunge" type Hydraulic Cassette Leveler, a 75 HP Servo Roll Feed, a Hi-Performance Hydraulic Cut-Off Shear, and new state-of-the-art electronic controls.

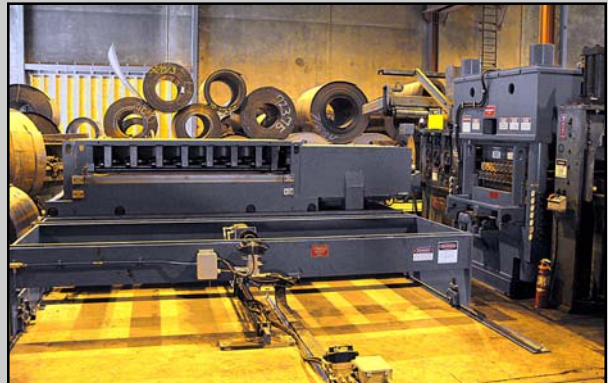


Reliance MetalCenter's 72" x 5/16" CTL was originally equipped with a 3,500" x 17-roll x 5-adjustable flight x 200 HP "mechanical" Leveler, a 60 HP Servo Roll Feed, and a mechanical Shear. The mechanical Leveler was replaced with a 300 HP x 7-adjustable flight Hydraulic Cassette Leveler with two (2) quick-change Cassettes, the Roll Feed was upgraded to a 75 HP Servo Roll Feed; and the mechanical Shear was replaced in favor of a Hi-Performance Hydraulic Shear. The remaining original line components including a 50 HP Entry Coil Straightener and 30' Air Float Sheet Stacker were re-employed in the upgraded CTL.

New Hydraulic "Plunge" Leveler: Reliance MetalCenter greatly enhanced its ability to produce panel-flat laser quality high-strength sheets throughout a wide gauge range with the installation of a Hydraulic "plunge" Leveler equipped with two (2) quick-change Cassettes.



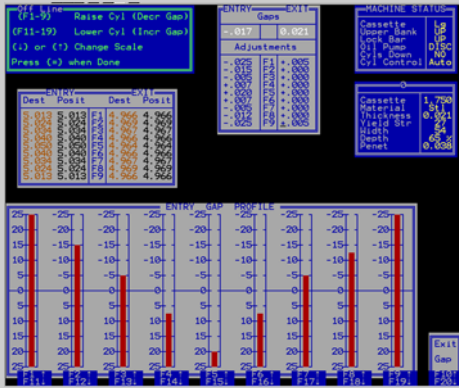
A new 300 HP Two Cassette Hydraulic "plunge" Leveler replaced the original fixed roll mechanical Leveler. Exchangeable Leveler Cassettes are stored on a power Injector Cart that can accomplish a Cassette exchange in 2-minutes.



This photo shows the 1.750" x 5-Hi Cassette staged on the Cassette Injector Cart while the 3.500" x 4-Hi Cassette is leveling coils. The 7-flight Cassettes are self-contained with all work rolls, intermediate rolls, back-up flights, and universal drive shafts installed within the Cassette frame. The top half of the Cassette can be quickly lifted-off the bottom half to expose all the work rolls and related parts for cleaning and other periodic maintenance. The ability to easily work on all the working parts exposed and outside of the Leveler frame makes preventative maintenance easier, quicker, and more likely to happen regularly. Just as important, the Cassette Leveler allows periodic maintenance to be accomplished while the other Cassette is running. No production time is lost to roll cleaning and maintenance.

Based upon coil gauge and mechanical properties, Reliance MetalCenter is able to employ either a 3.500" x 4-Hi or a 1.750" x 5-Hi Leveler Cassette to produce flat, flat sheets for its customers. The new Cassette Leveler employs 14-independently controlled hydraulic cylinders rather than gearmotors and sliding wedges to position the work rolls for straightening and shape correction. The 14-cylinders, each fitted with a computer controlled linear voltage transducer, provide precise position accuracy required for quality shape correction. The cylinders are capable of generating an enormous work roll *plunge* force, which allows Reliance MetalCenter to achieve laser flat high-strength sheet quality. A massive 4-post Cassette Leveler frame, engineered for stability and rigidity while plunge leveling, contains the Cassette when running.

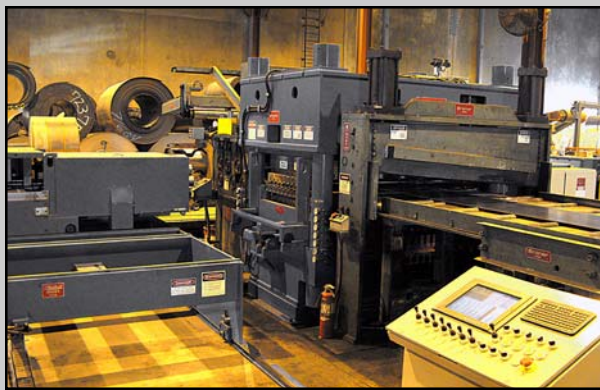
Computer Leveler Controls: Reliance MetalCenter's new Cassette Leveler employs a computer to minimize leveling "black art" and to generate consistent results when run by several machine operators. Automatic Leveler set-up is achieved by entering gauge, yield strength, and strip condition...edge wave-center buckle data. Computer override controls allow the operator to make adjustments while running. The computer program stores specific Leveler set-ups for future order number recall, a time and scrap saving feature particularly when leveling partial coils or when breaking into a production run for a quick delivery order.



Leveler computer monitor displays an easy to interpret back-up flight bar graph position profile along with material data and Leveler set-up parameters. Multiple monitor screens are interactive and operator friendly.



The Servo Feed draws the strip out of a free-loop and feeds the strip into the Shear for cut-off. Servo Feeds compare favorably to "reciprocating hitch feeders" in performance and reliability. Grabbing, releasing, sliding backwards, and re-grabbing consumes the majority of a reciprocating hitch feeder cycle time. By comparison a Servo-Feed simply feeds forward and has few parts that require replacement or repair. The Servo-Feed's fast non-reciprocating operation, low acceleration/deceleration, few moving parts with an absence of chains, screws, clamps, and related mechanical parts makes it an outstanding performer with consistent close-tolerance accuracy, low operating cost, plus bullet-proof reliability.



A new free-standing Leveler control station was installed at the exit end of the Cassette Leveler to provide the operator with a clear view to inspect the leveled strip as it leaves the Leveler. The control station contains the Leveler computer, color monitor, key pad, and joy stick manual override controls.

Hi-Performance Hydraulic Shear:

Reliance MetalCenter's upgraded CTL Line includes a new high-performance hydraulic cut-off Shear. The new Hydraulic Shear employs PLC controlled hydraulic cylinders to power the guillotine ram through its cycle. Four edge shear blades are installed in the guillotine ram and the lower blade holder. Horizontal blade clearance is adjustable for processing the entire .028" through 5/16" gauge range. Benefits of the Hydraulic Shear include outstanding performance, a virtually silent shearing cycle, and bullet-proof reliability.

Electronic Servo-Feed: A high-torque 75 HP Electronic Servo Feed generates the power to efficiently feed and precisely measure the strip for cut-off. The Servo-Feed draws the leveled strip from a free-loop and feeds the strip to a pre-determined length into the cut-off Shear. Part lengths are accurately measured by an electronic encoder, while the microprocessor controls automatically establish ideal acceleration/deceleration rates. Part length and batch count are operator entered into the digital operating system quickly and easily. In addition to the Servo-Feed's precise accuracy and high-cycle rate, the Servo-Feed employs a "pull-back" sequence that pulls the incoming strip away from the Shear blade as the blade withdraws from the strip. As the Shear blade cuts through the strip, the Servo-Feed instantly reverses a few thousandths, pulling the incoming strip away from the Shear blade so the blade doesn't scuff against the leading edge as the Shear completes its cycle. Shear blade scuffing can cause sheet edge damage, bent sheet ends, and lost production related to Shear blade cleaning.



Panel-flat laser quality high-strength sheets, superb performance, plus bullet-proof reliability made Reliance MetalCenter's choice of a Braner/Loopco Cassette Leveler & Servo Feed a "no-brainer".



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