NEWS RELEASE

Metals USA Installs 72” Stainless & Aluminum Leveling Line

Kansas City, MO – Metals USA, Inc, one of the largest metal distributors and processors in North America, has installed and commissioned a high production *“state-of-the-art”* Precision Electronic Servo Feed Leveling/Cut-to-Length Line at its Liberty, MO (Kansas City) facility. The new line, designed and manufactured by Braner/Loopco, Schiller Park, IL, is designed to convert 300 and 400 series stainless steel and aluminum alloy coils into panel flat precision tolerance sheets and blanks. The new line is capable of processing 84” O.D. coils weighing up to 40,000 lbs in widths from 18” through 72”. The line has the capacity to corrective level and shear stainless and aluminum throughout a gauge range from .032” to 1/4”.

Leveler: The ability of a roller leveler to remove strip shape defects in any given material is limited by the leveler’s work roll size, roll centers, structural rigidity, and horsepower. The Metals USA cut-to-length line is designed to level and shear stainless and aluminum coils throughout a gauge range from .032” through .250” thick, with typical stainless steel and aluminum yield strengths. This shape correction leveling range would require two (2) conventional *“fixed roll”* roller levelers installed in tandem. Rather than installing two independent levelers with the attendant maintenance and synchronization difficulties, Metals USA elected to install Braner/Loopco’s *“Cassette Leveler”* with two (2) interchangeable work roll “c*assettes”*. Cassette levelers have the distinctive ability to operate with interchangeable leveler cassettes, with each cassette containing a different roll size for leveling a specific gauge and product range. The Cassette Leveler frame is designed to operate with 4-hi, 5-hi, and 6-hi light and heavy gauge cassettes, with the structural rigidity and driving power to process the heaviest and toughest coils. The Metals USA leveler is a Cassette Leveler structurally designed and powered to shape correct ¼” x 72” stainless steel, but has the ability to shape correct low strength light gauge aluminum. A cassette with 3.000” work rolls is utilized to level coils from .250” to .090” thick, and a second cassette with 1.750” work rolls is utilized for leveling coils from .125” to .032” thick. Both cassettes have 6-hi roll arrangements for leveling top and bottom surface critical materials, and both are equipped with seven (7) adjustable back-up flights for precise shape correction. The cassettes automatically couple with a common leveler frame drive train. The Cassette Leveler with two cassettes allows Metals USA to provide superior flatness quality throughout the entire .032”-.250” stainless and aluminum gauge range.

Cassette Injector: The leveler cassettes are installed and removed from the leveler frame by a powered *“Cassette Injector”.* The Injector table has the ability to store two cassettes and shifts from side to side to align cassettes for installation and removal from the leveler frame. The Cassette Injector is fitted with a powered *“Cassette Opener”* that grips the upper portion of the cassette and opens it like a “book” for convenient tabletop cleaning and servicing while the line is operating with the second Cassette. The ability to service leveler work rolls and back-ups outside of the leveler frame greatly simplifies leveler maintenance, and the ability to run the line while servicing the leveler rolls greatly improves productivity.

Precision Electronic Feed: The Cassette Leveler levels the strip and drives it into a free loop ahead of the Precision Servo Feed and Shear. Quadrant tables located at the entry and the exit sides of the pit support the free loop. The quadrants are designed to prevent the strip from being bent to a radius that would re-introduce coil set. Power adjusted side guides are utilized to guide and square the strip as it enters the Servo Feed. The Servo Feed, installed immediately ahead of the Shear, precisely measures the sheet length while it feeds the strip into the Shear. The feed rolls are profiled low inertia rolls with a special high friction non-marking surface. Both upper and lower feed rolls are driven from a zero backlash gear reducer by a microprocessor controlled servomotor. The Servo Feed, electronically synchronized with the leveler, pulls the strip from the free loop and feeds the Shear. The feed cycle is programmed to start with controlled acceleration up to the maximum feed speed. It then enters a controlled deceleration to a full stop when the exact part length has been reached. The Shear is given a signal to cut, and the feed cycle begins again. A high-resolution precision electronic encoder continuously monitors the feed length to within thousandths of an inch during the feed cycle. After the Shear has completely cut through the strip, the Servo Feed reverses the strip .002” to prevent the shear blade from “wiping” the leading edge of the strip. This anti-wiping feature produces a cleaner sheared edge and prevents premature dulling of the shear blade. The Servo Feed offers high productivity and precise tolerances,

Braner USA Loopco

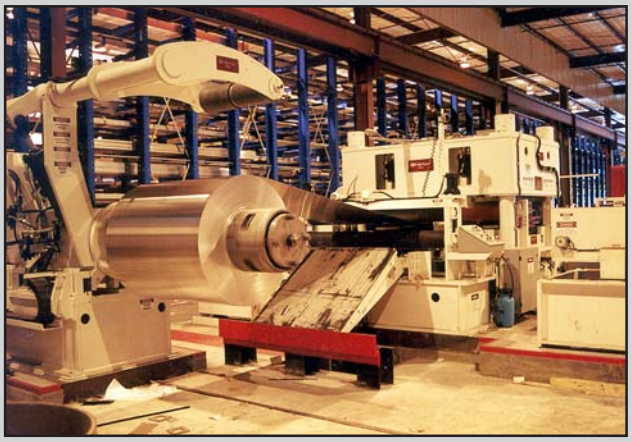
and because of few moving parts, superb reliability and virtually zero maintenance.

Surface Protection: The Metals USA line is dedicated to producing high quality surface sensitive sheets and blanks, and is therefore equipped with a PVC Laminator designed to laminate protective PVC on the topo and bottom of the parts. In addition, a paper interleaver and static charge bar is included to interleave paper sheets between the parts.

Shear: Precision sheets and blanks are produced by a high speed overdriven mechanical Shear located adjacent to the Servo Feed and immediately ahead of the Sheet Stacker. The Shear is equipped with an AC motor that drives a flywheel at 220 RPM via multiple "V" belts. The flywheel is coupled to a crankshaft that drives the upper shear ram through a shearing cycle in less than half a second. A heavy-duty pneumatic clutch-brake engages and disengages the crankshaft from the flywheel causing the shear ram to cut and return. Four edge shear blades are installed at a minimal rake angle to prevent shear induced twist in short sheets. Horizontal shear blade clearance is adjustable via pushbutton for various gauge and shear strength materials. Because of the extremely short cycle time, the mechanical Shear offers unmatched productivity when producing short blanks.

Belt Conveyor-Mini Stacker: A variable speed belt conveyor carries the parts produced by the Shear to either the Sheet Stacker or a Mini-Blank Stacker. The belt conveyor allows the attendants to easily remove precision blanks from the line for dimensional verification without interrupting the line operation. The belt conveyor can be shifted out of line in favor of a Mini-Blank Stacker designed to stack multiple small blanks on a common skid.

Sheet Stacker: The sheets and blanks produced by the Metals USA cut-to-length line can range from 18" to 72" wide x 20" to 240" long. These parts are automatically handled by a Sheet Stacker that places the sheets into neat straight sided packages that can weigh up to 20,000#. The Stacker is a "flipper" type that supports both sides of the sheet on non-marking wheels. The wheels are mounted on flippers that swing open to drop the sheet onto the sheet pack after shearing. Side skirts on both sides contain the sheet as it is dropped. The side skirts form the sides of the sheet pack while an end stop forms the sheet pack ends. An elevating stacking table is positioned by electric eye to maintain a constant 4" drop to the top of the sheet pack. The flippers both swing into position to support the sheet as the lead edge enters the Stacker. As the strip is cut, the flipper assembly swings open to drop the sheet onto the pack. The flippers return to support the strip before the next feed cycle. When the sheet pack is complete, the elevator lowers and discharges the pack onto the Runout Conveyor. An electronic scale is built into the Runout Conveyor to record the pack weight before it is removed from the line.



Control: The Metals USA line is equipped with "state-of-the-art" microprocessor and PLC electrics to control all line functions. The leveler set-up requires only that the operator enter strip thickness and yield strength data at the leveler console. Once the data is input, the leveler work rolls and back-up rolls are positioned automatically. If a repeat order is to be processed, the operator has the option to simply enter the previous order number. The microprocessor memory automatically positions the work rolls and back-ups to the settings established when the previous order was processed. To program the line operation, the operator enters the part length, sub-batch (sheets per bundle), and batch (total number of sheets in the order) count at the main operator console. The line microprocessor receives this data and computes the ideal leveler speed; the ideal feed acceleration and deceleration rates; and the ideal running speed. Once this data is entered and the line started, the line will run until the sub-batch or batch count is reached, at which time the line automatically stops. If shape correction adjustments need to be made while the line is running, those adjustments can be accomplished by either entering data into the leveler microprocessor or by "joystick" control. The new leveler parameters can be committed to memory for future recall. When the coil is about run out, the line enters a "tail-out" mode that automatically slows the line and raises the looping pit tables, and finally stops the line when the coil tail leaves the leveler. Line fault diagnostics are included as is a telephone modem that allows fault diagnostics and program adjustments to be made from the Braner/Loopco plant. The controls are designed for operating simplicity and to eliminate the "art" of leveler set-ups.

Braner USA, Inc., 9301 W. Bernice St., Schiller Park, IL 60176
Phone (847) 671-6210 Fax: (847) 671-0537
www.braner.com

Metals USA, 2275 Half Day Road, Suite 126, Bannockburn, IL 60015
Phone (847) 405-7665 Fax: (847) 405-7664
www.metalsusa.com