

NEWS RELEASE

Jemison Demsey Metals Installs 1/2" x 100" Cassette Leveler CTL Line

Gadsden, AL – Jemison Demsey Metals has installed a massive wide gauge range cut-to-length line at its Gadsden, AL facility. The CTL line, manufactured by Braner/Loopco, Schiller Park, IL, has the capacity to convert 80,000# x 84" OD hot rolled steel coils into panel flat sheets and plates in gauges from .050" to 1/2" thick in widths from 24" through 100". Material yield strength capacity ranges from 36,000 PSI to 70,000 PSI. A Cassette Leveler with two exchangeable Cassettes and a Servo Roll Feed gives the CTL Line the unique ability to efficiently process coils throughout a wide range of gauges yield strengths.



80,000# x 100" Wide x 1/2" Cassette Leveler CTL Line

Entry Section: Master coils are staged on Entry Coil Saddles from which a Pit Coil Car transports and loads the coils onto a Double Cone Uncoiler that handles coil IDs from 20" through 33". The Cone Uncoilers are equipped with 2-100 HP DC motors (one on each housing) that provide feed-up and back-tension power. A Hold-Down Roll and a Hydraulic Set Breaker Roll are mounted above the Uncoiler in a common floor frame, and both are employed to thread coils into Pinch Rolls and an Entry Crop Shear. The coil head end is sheared-off with the scrap ends collected in a Powered Scrap Car. The Scrap Car delivers the scrap pieces to a collection box where the scrap is power unloaded. The Pinch Rolls are mounted in close proximity to the Shear in order to feed the coil ID tail into the Shear for shearing into short pieces.



Cone Uncoiler, Hold-Down, Set-Breaker Roll, & Crop Shear



Massive 4-Post x 500HP Hydraulic Cassette Leveler



3.000" Cassette Stored on the Injector Cart. 5.500" Cassette is Installed in the Leveler

Cassette Leveler: At the heart of the CTL Line is a massive 4-post Hydraulic Cassette Leveler that processes a gauge range from .050" through 1/2" via two exchangeable Cassettes. Gauges from .050" through .250" are processed on a 3.000" x 17-roll x 9-flight x 4-Hi Cassette. Gauges from .135" through .500" are processed on a 5.500" x 11-roll x 9-flight x 4-Hi Cassette. The Cassettes are powered by a 500 HP Leveler drive. The small Cassette operates at 0-250 FPM, while the large Cassette operates at 0-160 FPM. The Cassettes are stored on a Cassette Injector Cart that shifts from side-to-side to align each Cassette with the Leveler frame. Cassettes are power injected into the Leveler frame in 2-minutes. Hydraulic locks secure the Cassette in the Leveler frame when running. Work roll, back-up roll, and universal shaft maintenance mill scale clean-up is easily accomplished with the Cassettes outside the Leveler frame on the Injector Cart. Off-line Cassette maintenance gives Jemison Demsey the ability to operate the CTL Line with one Cassette while performing preventative maintenance on the other.

Hydraulic Back-Up Adjustment: The Cassette Leveler employs 18-independent micro-processor controlled hydraulic cylinders to establish work roll entry and exit gaps and back-up flight roll bend adjustments for strip shape correction. Linear electronic transducers precisely position the back-ups for eliminating wavy-edge and/or center-buckle strip shape defects via work roll bending. A computer memory reduces Leveler set-up time by storing entry and exit work roll gap settings as well as “smile” or “frown” roll bend recipes from previously processed coils. Leveler calibration is automatically accomplished by pushbutton in a matter of a few minutes without any tools or having to dismantle Leveler components.



Cassette Leveler Producing Panel Flat Hot Band Sheet

Two Operating Modes: Coil gauges from .050” through 1/2” are processed in two operating modes. Gauges from 1/4” through 1/2” are processed using the 11-roll x 5.500” Cassette in a “tight-line” mode wherein the strip is laid flat throughout the line and the Leveler runs start-stop at 0-160 FPM. A 1,000 PIW x 3/8” wall coil would generate about thirty-seven 20’ long sheets, so processing heavy-gauge coil in the start-stop mode is quick and efficient.



Right to Left: Squaring Guides, Servo Roll Feed, & Hydraulic Shear

Processing lighter gauges in the start-stop mode would be inefficient, so the Jemison Demsey CTL Line has the ability to process gauges from .050” to 1/4” with the 17-roll x 3.000” Cassette in a “free-loop” Servo-Feed mode wherein the Leveler feeds the strip at a constant 200-250 FPM into an accumulation loop. A 93 Kw micro-processor controlled Servo Roll Feed draws material from the loop, precisely feeds-to-length, adjusts the slack loop depth, and cycles the Shear.

Stacker/Runout Conveyor: Sheets and plates from 24” wide to 100” wide up to 40’ long are automatically stacked into packages by a “drop-type” Automatic Stacker with an elevating Stack Table. 60’ of Power Roller Conveyor with a built-in load cell scale convey finished sheet packs out of the Stacker.



Finished Sheet Packs Discharged from Stacker



Mike Dunn, Operations Manager – Like our two Braner/Loopco Turret Head Slitting Lines, our 1/2” x 100” CTL Line is rugged, reliable, and productive, and it allows us to provide our customers with excellent quality sheet and plate products. The Hydraulic Cassette Leveler and Servo Roll Feed gives us the ability to produce a panel flat product throughout a wide gauge and yield strength range in a highly efficient manner.



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