Hascall Steel Installs 60,000# x 72” x 1/4” Slitter with Shape Correction Leveler

Grandville, MI – Hascall Steel Company, a multi-facility full-service flat rolled steel service center headquartered in Grandville, MI has installed a new high-production Single-Loop Turret Head™ Slitting & Packaging Line with a shape correction Cluster Leveler™ in its 150,000 square foot flagship Grandville, MI facility. The new Slitting/Shape Correction Slitting Line is Hascall Steel’s third Braner/Loopco Turret Head™ Slitting Line. The new line has the capacity to slit and shape correct 60,000# x 72” wide hot rolled black, pickled, cold rolled and galvanized carbon steel coils in gauges from .015” through ¼” at processing speeds to 1,000 FPM.

The Compact High Pass Line design processes coils without bending the strip against the natural coil-set. The Uncoler is installed tight against the Entry Unit, which minimizes coil threading and conserves floor space.

Turret Head Slitter™: A 9.000” arbor x 150 HP 2-head quick-change Turret Head™ Slitter produces precise width tolerance slit strips with minimum burr throughout the entire range of gauges and mechanical properties. The Slitter arbors are supported in precision machine tool quality bearings mounted in huge one-piece stress-relieved and precision machined solid steel housings. The rotatable Turret is mounted on a precision anti-friction ring bearing, which assures precise arbor alignment and makes head change effortless. The outboard arbor housing is supported on precision anti-friction machine tool slides and is engaged and disengaged by hydraulic cylinder. Large aluminum-bronze blocks secure the adjustable upper arbor bearing boxes in the arbor housings. Axial arbor movement is “zero”. The upper arbor bearing boxes are vertically positioned by motorized anti-backlash screw jacks fitted with electronic encoder digital position readouts for quick and precise vertical knife clearance adjustment. Compared with “slide-out” injector head slitters, Turret Head™ Slitters can be set up faster and change heads quicker, and because the multiple heads in a Turret Head™ Slitter are a non-removable and integral part of the one-piece turret, Turret Head™ Slitters are more rigid and more precise than “slide-out” injector head slitters.

Exit End: The Hascall Steel line is equipped with a Pad Tensioner that generates strip tension necessary to produce tight straight-wall slit coils. Tension is adjustable and regulated from the main operator console. Entry strip separator tooling is secured on lightweight aluminum alloy arbors that exchange with pre-tooled...
The Cluster Leveler™ is installed between the Tensioner and the Exit Shear. With its seven (7) adjustable back-up flights and work roll bend capability, the Cluster Leveler™ does not depend on tension for shape correction, and therefore will not "neck" the strip and reduce slit width dimensions.

**Cluster Leveler™**: A 72" x 4-Hi x 7-flight Precision Cluster Leveler™ allows Hascall Steel to supply its customers with coil free of wavy-edge and center-buckle strip shape defects. The patented Leveler design has multiple roll "clusters" with work roll sizes ranging from 1.500" to 3.000", which allows it to correct strip shape defects throughout the Slitting Line’s .015" to .250" gauge range. Seven (7) adjustable back-up flights support the work rolls and provide roll bend ability. Automatic Leveler set-up is accomplished by a PLC controller after the operator enters gauge, yield strength, and defect data into the terminal.

The Cluster Leveler™ employs its large work roll cluster to shape correct .150" gauge x 50,000 PSI pickled & oiled coil. The Cluster Leveler™ is a unique patented roller leveler designed specifically for coil-to-coil shape correction applications where the range of coil gauge and yield strength parameters far exceed CTL line gauge and strength capacities. Joy stick controls allow the operator to override the PLC automatic set-up and make roll bend adjustments while running.

Specifically designed for coil-to-coil applications, the Cluster Leveler™ employs non-driven work rolls. The hydraulic cylinder “quick-open” feature allows coil threading to be quickly accomplished.

The Exit End equipment generates strip tension, crops coil tails, and rigidly supports the Overarm Separator in 60-seconds. Tension Pads are also exchanged in 60-seconds. An Exit Shear squares coil tails and splits coil ODs. The Overarm Separator is firmly attached from both inboard and outboard sides to the Exit Unit frame, which eliminates Overarm frame deflection and resulting misalignment that can cause coil side-wall scuffing and coil oscillation. The Overarm has a “side-adjust” feature that allows the operator to make Overarm alignment adjustments without having to make a new set-up.

The Overarm Separator swings open to align with a tooling set-up cart where Overarm tooling set-ups are made off-line while the Slitter is running. Tooling is transferred from the Overarm arbor onto the Gatling Gun type set-up cart, and the tooling for the next order is quickly transferred onto the Overarm arbor. Once loaded, the Overarm tooling is locked onto the arbor by pushbutton.

Pushbutton Overarm Tooling Lock-Up: The Overarm Separator swings open to align with a tooling set-up cart where Overarm tooling set-ups are made off-line while the Slitter is running. Tooling is transferred from the Overarm arbor onto the Gatling Gun type set-up cart, and the tooling for the next order is quickly transferred onto the Overarm arbor. Once loaded, the Overarm tooling is locked onto the arbor by pushbutton.

Swing-Open Pushbutton Tooling Lock-Up Overarm Separator and Gatling set-up cart.

Quality, Productivity, Bullet-Proof Reliability, know-how from building nearly 600 Slitting Lines, plus outstanding technical support made Hascall Steel’s selection of its third Braner/Loopco Turret Head™ Slitting Line a “no-brainer”.

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