

# NEWS RELEASE

## Pacific Toll Processing Installs 72" Servo Feed Multi-Blanking Line

Carson, CA – Pacific Toll Processing, a coil and sheet distributor and coil processor has installed a high-speed close-tolerance Multi-Blanking Line in its Carson, CA coil processing facility. The Multi-Blanking line has the ability to convert bare and coated carbon steel, aluminum, and stainless coil up to 60,000# x 72" wide into panel-flat sheets and precision blanks in gauges from .015" through .135" at cutting rates up to 100-cycles/minute. The new Multi-Blanking Line complements Pacific Toll's existing 72" class-1 exposed automotive coil slitting/surface inspection Double-Loop Turret Head™ Slitting Line.



*Cassette Leveler- Servo-Feed-DC Shear Multi-Blanking Line*

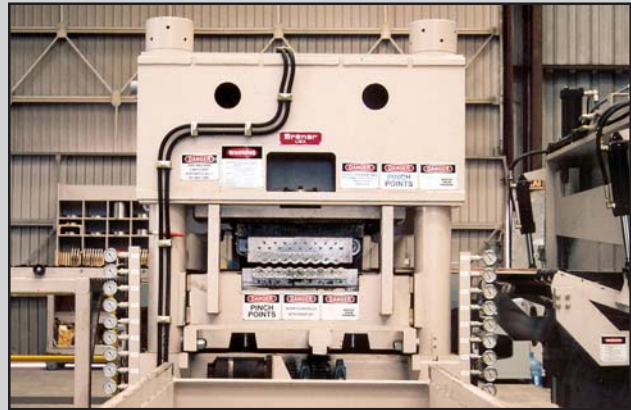
**Entry Section:** Master coils are staged on a 4-Station Turntable that allows quick and easy coil selection and off-loading of rejected coils. A Coil Peeler, Pinch Rolls, Non-Contact Automatic Edge Control, Roller Side Guides, Entry Guillotine Shear, and Cropped End Scrap Cart prepare the coil for threading into the Cassette Leveler.



*60,000# x 72" Multi-Blanking Line Entry Section*

**Cassette Leveler:** The Pacific Toll's Multi-Blanking Line employs a massive 4-post 9-flight x 5-Hi Cassette Leveler with 18-independent microprocessor controlled hydraulic back-up cylinders to produce panel flat sheets and blanks throughout a wide gauge and product range. The work rolls, back-up bearings, and universal shafts are housed in independent "Cassettes" that are power injected in and out of the 4-post Leveler frame. The ability to remove and exchange work roll Cassettes allows Pacific Toll to continually expand its leveling capacity with additional Cassettes, each with a different gauge range and product specification. 4-Hi, 5-Hi, and 6-Hi Cassettes with various work

roll diameters can be accommodated in the 4-post Leveler frame. Roll maintenance is easily performed outside the Leveler frame (*while the line is running with other Cassettes*) where all working parts are easily accessible. The Cassette Leveler features full automatic entry and exit roll gap set-up via gauge and yield strength operator prompts. A 200-recipe roll gap and shape-correction memory stores Leveler set-ups via work order number. Stored recipes virtually eliminate set-up time and scrapped material when processing partial coil orders. Leveler calibration is accomplished automatically in 5-minutes without tools and instruments.



*Massive 4-Post Hydraulic "Cassette" Leveler*

**Turret Head™ Multi-Blanking Slitter:** Coils are slit into multiple precision width strips by a 2-head Turret Head™ Slitter installed immediately after the Cassette Leveler. The Slitter is synchronized with the Leveler speed to run at a constant non-stop line speed in order to produce ideal and consistent slit edges. Rubber strippers installed across the entire coil width support thin-gauge wide strips during slitting to prevent strip buckling and related rejections. Utilizing specially formulated precision shimless tooling, tooling set-ups that consistently generate  $\pm 0.0020$ " slit width tolerances are completed in 15-minutes. A huge productivity benefit comes from the fact that a slitter set-up for the



*Quick-Change "Pushbutton Tooling Lock-Up" Turret Head™ Multi-Blanking Slitter with Off-Line Set-Up Ready to Exchange*

next order is accomplished while the line is running, not after an order is processed and the line is shut down. Like all Turret Head Slitters™, head changes are accomplished in less than 2-minutes and reliability is "bullet-proof".

**Precision Electronic Servo Feed:** The Pacific Toll Precision Electronic Servo Feed employs high-traction low-inertia non-marking feed rolls driven by a microprocessor controlled AC servo motor to feed and measure parts to  $\pm 0.005"$  length tolerances. The Leveler runs at a constant speed feeding the leveled strip into large radius non-marking quadrant tables that support the strip in and out of the loop. The Servo Feed draws the strip from the free-loop and feeds the strip to a pre-set dimension into the Shear. A brushless AC servo motor drives both upper and lower feed rolls through a zero-backlash drive train. The part length is precisely measured by an electronic encoder, while a microprocessor establishes acceleration/deceleration rates. Sheet length and batch count are quickly entered into the digital operating system. Compared to a mechanical "reciprocating mechanical feed", a Servo Feed has a much higher production rate and much lower maintenance requirements. A reciprocating feeder grabs the strip, shoves it forward to a positive stop, grabs it with holding clamps, shoves the reciprocating clamp backwards, grabs the strip again, and releases the holding clamp before it starts another cycle. Grabbing, releasing, sliding



Hi-Cyclic Rate Electronic AC Servo Feed

backwards, and re-grabbing consume the majority of a reciprocating feeder's cycle time. By comparison, a Servo Feed simply rotates its feed rolls to advance the strip. A reciprocating mechanical feed's productivity is diminished further when making multiple feed strokes for long parts. The Servo Feed's non-reciprocating operation, low acceleration/deceleration rate, few moving parts, and a total absence of chains, length adjust screws, shock absorbers, limit switches, valves, pumps, slides, clamps, & hydraulic hoses gives it "bullet-proof" reliability as well as consistent accuracy.

**100-Cycle/Minute DC Shear:** The Pacific Toll line includes a huge top driven bow-tie Shear powered by a variable speed DC motor. The Shear is capable of producing pattern size sheets in a 60-stroke/minute "clutch-brake" mode,

and short blanks in a "non-stop continuous-stroke mode". The Servo Feed/Shear cycle is programmed to operate in the clutch-brake mode for long parts, and the non-stop continuous-cycle mode when producing shorter parts. Combined with the high-cyclic rate Servo Feed, the non-stop continuous Shear cycle offers unrivaled close-tolerance small blank productivity. When the Shear runs non-stop, the crankshaft speed is synchronized with the Servo Feed and the Servo feed cycle begins as soon as the upper shear blade clears the material on its up stroke. The Servo feed cycle continues well past top dead center and stops as the shear blade approaches the strip in its down stroke. The simultaneous Servo Feed-DC Shear cycle can generate parts per-minute productivity twice as high as any other technology.



100-Cycle/Minute DC Shear & Servo Feed

**Programmable Multi-Blank Stacker:** The Multi-Blank Stacker features full automatic set-up via microprocessor controlled AC servo motors. The multi-blank blank dividers are automatically positioned to produce "solid-block" straight-sided single sheet and multi-blank packs. Hydraulic locks secure the dividers in position, and an air float system generates a thin air film that prevents sheet-on-sheet scratching.



Programmable Stacker Produces Solid-Block Multi-Blank Stacks



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