

# NEWS RELEASE

## Baldwin Steel Installs 72" Slitting Line in Houston, TX

Houston, TX - Baldwin Steel Company, a multi-facility coil and sheet distributor and coil processor has installed a large high production coil slitting line in its Houston, TX, plant. The slitting line, designed and manufactured by Braner/Loopco, Schiller Park, IL, is designed



to process coated and bare cold rolled, and hot rolled pickled coils in sizes up to 80,000# x 72" wide, with coil diameters to 84". The line has the ability to slit mild and high strength steel coils in gauges ranging from .010" through 3/16" at line speeds up to 1,000 FPM.

**Line Configuration:** The line is configured to produce tight tolerance superb quality slit coils throughout the product range. The "high pass line" eliminates equipment induced coil breaks and makes coil threading extremely fast because the strip is never "reverse bent" under load. Another benefit derived from the high pass line is that no "deflector rolls" touch the top of the strip, eliminating the possibility of surface scuffing critical surface coils. In addition, the high pass line configuration allows an "exit wrap roll" to be located in close proximity the Recoiler. This assures straight side wall slit coils from ID to OD.

**Operating Modes:** Because of the wide gauge and product range, the Baldwin line was designed with three operating modes: tight line; single loop; double loop. Side trimming and surface inspection is accomplished most efficiently in the tight line mode, as is slitting heavier gauge hot rolled product. Multiple cut slitting of non-surface critical coils in medium gauges is done most efficiently in the single loop mode. The double loop mode is utilized for slitting light gauge surface critical coils because this mode eliminates slitter knife "skidding". Double loop also allows the strip to be slit under zero tension conditions that produces a cleaner slit edge on light gauge. In order to accomplish slitting in those three modes, large DC motors are utilized on the Uncoiler, the Slitter, and the Recoiler.



**Slitter Design:** The Slitter is a quick-change "Turret" equipped with two 10.000" slitter heads. The Turret slitter is manufactured to precision machine tool tolerances and utilizes "shimless" slitter tooling that is lapped to within .000040", giving Baldwin the ability to produce precision tolerance slit coils. With clear access to the arbors during set-up (making re-

tooling easy), and the ability to change slitter heads in about a minute, little time is lost to tooling changes.

**Strip Tensioning:** Two strip tensioning devices are included in the Baldwin slitting line; a “pad” type for processing non-critical coils, and a “roll” type for critical surface and coated coils. Depending upon the application, these tensioning devices can be operated singly or in tandem to impart the proper winding tension for straight-sided coils. The pad tensioner



incorporates “slide-out” replaceable pads that can be exchanged in about 30 seconds. The roll tensioner utilizes tension rolls with a unique “non-sliced” surface that eliminates the “smut” that diced or sliced rolls apply to the strip surface. Two sets of strip guides are included in the tensioning equipment to separate and guide the strips. A quick-change speed load device allows for “off-line” set-up of the guides and an exchange that takes about a minute.

**Recoiling:** The ability to produce straight sidewall coils is directly related to the design

of the tensioning equipment and the power and rigidity of the Recoiler. The Baldwin Recoiler has a 250 HP motor driving through a parallel shaft gear reducer to a 14" diameter output shaft. A 20" rewind mandrel with 2" thick expanding segments is mounted on that output shaft. To eliminate any deflection and misalignment under load, an outboard bearing supports the shaft end maintaining perfect alignment of the Recoiler mandrel with the exit wrap roll and the Overarm Separator. Installing “fillers” onto the base 20" mandrel produces 24" ID coils. The fillers are installed and removed via a Magnetic Speed Load Fixture that allows Baldwin to change from 20" to 24" or vice-versa in a minute. Conventional “bolt-on” fillers take anywhere from 15 to 30 minutes to install or remove.



**Control:** Operator friendly line controls are designed for ease of operation and visibility. The main operator console is elevated, giving the line operator an excellent view of the coil from entry to exit. Remote control stations are installed at both ends of the line for fast and safe coil loading and unloading.



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