

Inside the Cover

Steel Dynamics Inc. – Flat Roll Group Butler Division

Steel Dynamics Inc.'s (SDI's) proprietary high-definition digital coil printing line is the first in North America. Running at 200 feet/minute, the line uses four color bars with 26 individual print heads to produce high-resolution images of woodgrains and other materials. This advanced digital printer can produce images up to 32 feet in length before repeating a pattern, creating a finished steel coil product that SDI calls Tru-Steel HD®. A 32-foot image length is a massive improvement over the traditional process used to mimic real images, which utilizes engraved rolls to transfer paint onto the steel, a method that generally repeats the same pattern every 32 inches or less.

Tru-Steel HD image patterns begin with real wood (or any other material), which is scanned in SDI's design center on their large-format scanner. These scans are then further refined by a team of graphic designers to give the patterns an extra three-dimensional look. There are currently 29 unique print patterns available, ranging from barnwood plank and rough cedar to flagstone and Realtree® camo. If the available patterns don't suit a customer's needs, SDI's graphic design team can work with them to develop an entirely new, proprietary pattern.

Tru-Steel HD uses domestic cold-rolled steel substrate, which is produced with 92.6% recycled content at the Steel Dynamics Inc. – Flat Roll Group Butler Division using electric arc furnace technology. The bare cold-rolled coil is galvanized









with either a zinc or Galvalume® coating for corrosion resistance, after which it receives a pretreatment coating before being painted with both a primer layer and topcoat of high-quality paint. After painting, the coil is ready for the digital print line, where the image is applied in up to a 400 dots-per-inch (dpi) resolution (standard fine-art photography prints are only 300 dpi). The final step is a protective clear coat that uses zero chemical solvents.

Tru-Steel HD is ideal for exterior metal siding, garage doors, interior walls and ceilings, and furniture applications. It can be roll formed into nearly any siding profile including board and batten, standing seam, shiplap, and clapboard styles. The possibilities are endless with Tru-Steel HD, and SDI encourages customers to let their imaginations run wild!

