Nucor, the company world-renowned for pioneering the development of the thin-slab casting process in the late 1980’s, now has the distinction of being the first licensee of the revolutionary Castrip® process. The Castrip process utilizes the concept of twin-roll strip casting and represents the first commercial installation of direct casting of carbon steel sheet products. Among the main advantages of this new technology is the fact that the steel is cast at or near its final thickness. This eliminates the need for large hot and cold rolled reductions and provides unique product properties. The first plant was constructed in 2001 and commissioned in 2002 at Nucor’s Crawfordsville, Indiana steelmaking site. The facility and the second Castrip plant in Blytheville, Arkansas are each capable of producing 500,000 tons annually. Castrip UCS (Ultra-thin Cast Strip) products are sold to ASTM standards A1011, A1039, A1063 and A653.

The Castrip process utilizes two copper, water-cooled, counter-rotating rolls (see schematic this page). Liquid steel is poured between the rolls, forming a stable melt pool. As the rolls move downwards, the steel begins to solidify on each roll and is then formed into a single sheet at the contact point between the rolls. As the solidified sheet moves vertically downward, it is guided through pinch rolls and a hot rolling stand, where it is reduced to customer specified thickness. Typically, the thickness of the as-cast steel sheet is 0.06 to 0.07”. With in-line reduction, gauge is reduced to 0.035 to 0.060”.

* Castrip is a registered trademark of Castrip LLC
**CASTRIP HIGHLIGHTS**

- Light gauge Hot Roll with superior flatness.
- Increased yield during slitting - all coils are shipped cut edge.
- Tight gauge control: -0.000"/+0.004" possible.
- 70% reduction in ladle to coil green house gas emissions.
- Can replace cold rolled sheet for non-exposed and coated parts.
- Successful market applications include:
  - Steel Framing
  - Office Furniture
  - Steel Decking
  - Grain Storage
  - Tubing
  - Misc. Rollformed Parts
  - Shovel Blades
  - Racking & Shelving
  - Stamped Parts
  - Truss Plate
  - Fasteners
  - Purlins
  - Garage & Entry Door Components

---

**UCS PRODUCTS**

**CHEMISTRY:** Low-carbon, silicon-killed

**WIDTHS:**
- **Castrip-Indiana**
  - 42" to 48.5" cut edge
  - 1070 mm to 1230 mm
- **Castrip-Arkansas**
  - 48" to 60" cut edge
  - 1220 mm to 1525 mm

**THICKNESS:**
- 0.035” to 0.060”
- 0.9 mm to 1.55 mm

**SHAPE CORRECTED BLACK OR P&O SHEET:**

- **ASTM A1039**
  - SS Grades 33 through 60
  - Plus CS-A, CS-B & CS-D
  - HSLA Grades 50 through 80

**HOT DIPPED GALVANIZED SHEET:**

- **ASTM A1063**
  - SS Grades 33 through 50
  - Plus CS-A, CS-B & CS-C
  - HSLA Grades 50 through 80

* To inquire about additional thickness/grade combinations please see www.nucor-sheetmills.com or contact your District Sales Manager.