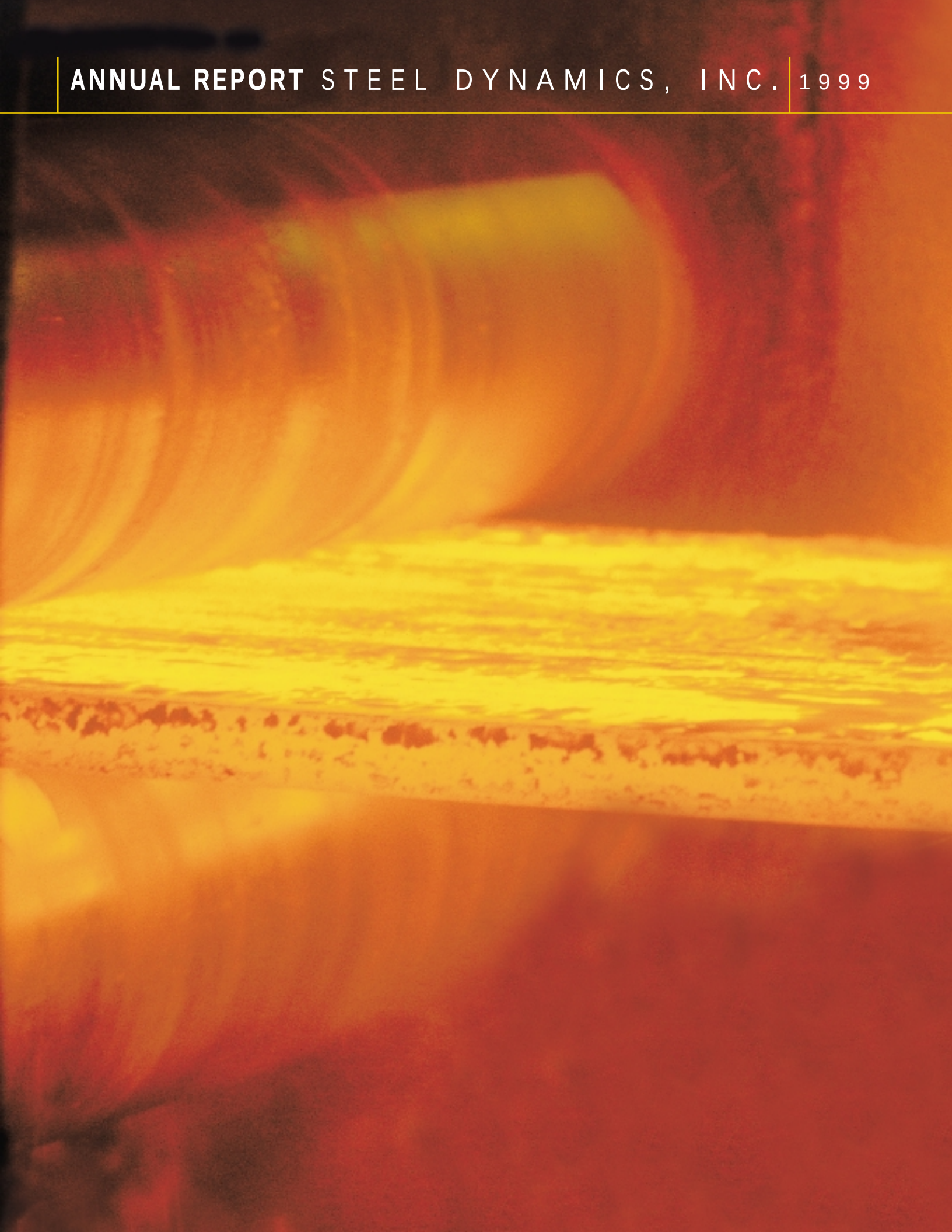
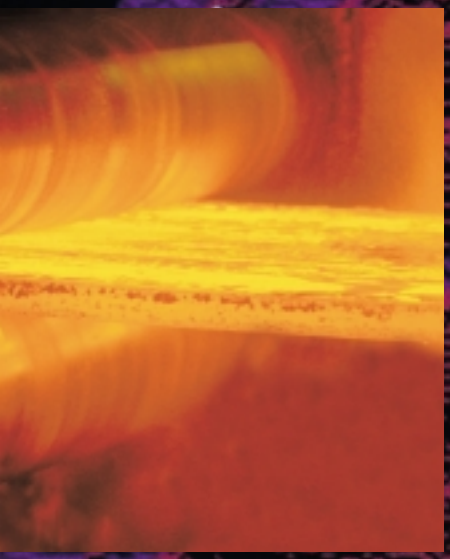
# ANNUAL REPORT STEEL DYNAMICS, INC. 1999



# Steel Dynamics, Inc.™



ON THE COVER: A glowing 1,650-degree F slab of steel rolls from Caster Number 2 in SDI's flat-roll steel mill. Photos of the caster and a discussion of SDI's steel-making technology begin on page 4 of this report.

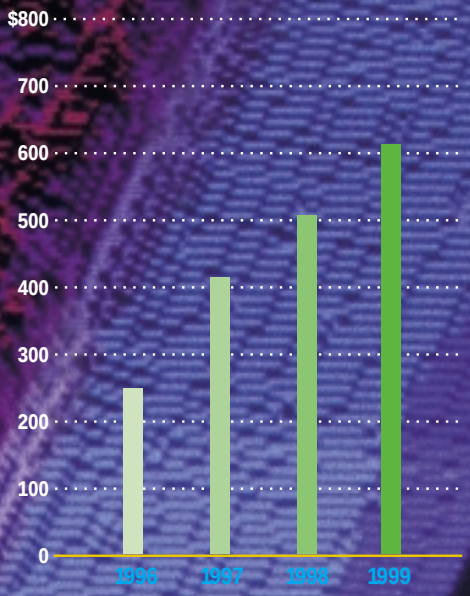
THIS PAGE: Steel Dynamics' engineers employ a variety of high-tech tools to monitor and control production processes. Shown here is a continuous temperature profile of the surface of the cast-steel slab after it exits the caster (cover photo). This image provides a continuous, real-time visual of temperature variation across the steel band—its thermodynamic topography.

## FINANCIAL HIGHLIGHTS (IN MILLIONS, EXCEPT EARNINGS PER SHARE)

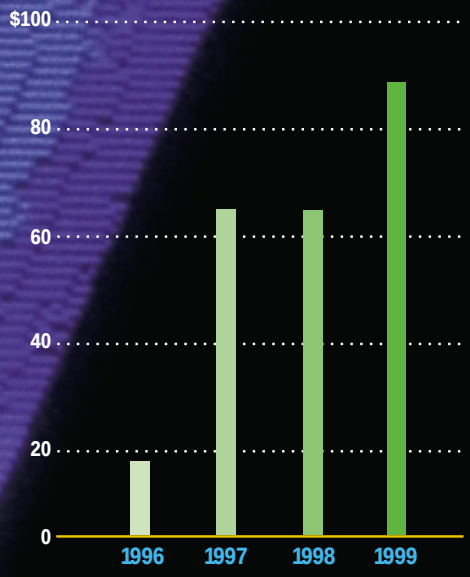
| | Year ended December 31, | | | | 1999 |
|---|---|---|---|---|---|
| | 1996 | 1997 | 1998 | 1999 | % increase |
| Net sales | $253 | $420 | $515 | $619 | 20% |
| Net income | (10) | 44 | 32 | 39 | 24% |
| Diluted Earnings per share | (.28) | .90 | .65 | .82 | 26% |
| Income from operations | 18 | 65 | 65 | 89 | 37% |
| Total assets | 522 | 641 | 907 | 992 | 9% |
| Stockholders equity | 265 | 338 | 351 | 391 | 11% |

**Since beginning operations in early 1996, Steel Dynamics has grown quickly and profitably, producing a broad range of flat-rolled steels at its mill in Butler, Indiana. The company operates in the electric-furnace mini-mill sector of the American steel industry.**

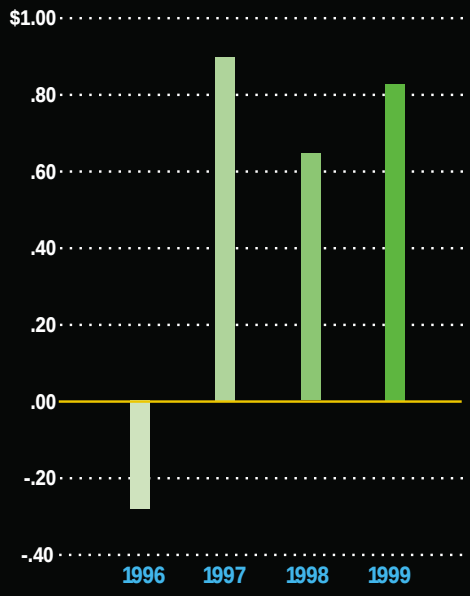
### NET SALES (MILLIONS)



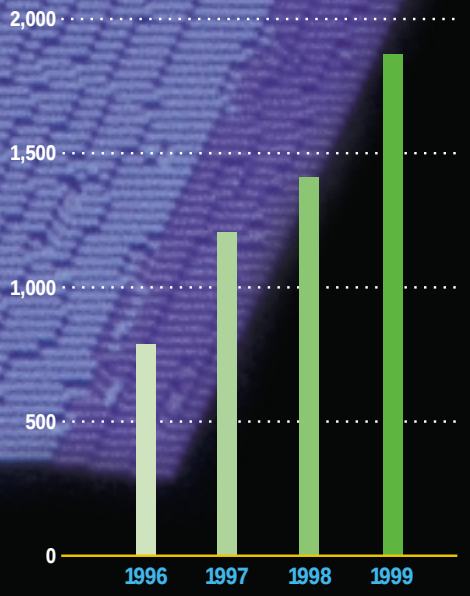

### INCOME FROM OPERATIONS (MILLIONS)



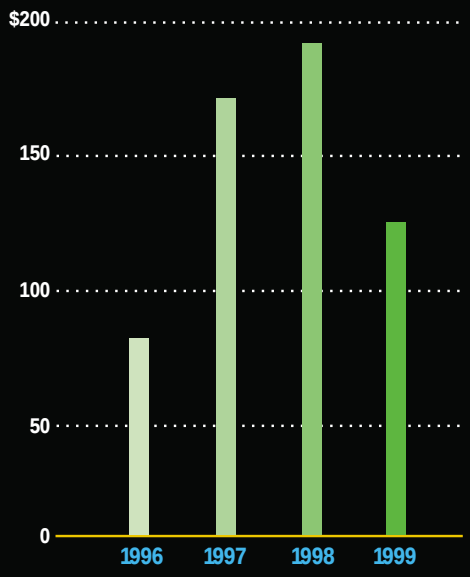

### EARNINGS PER SHARE (DILUTED)



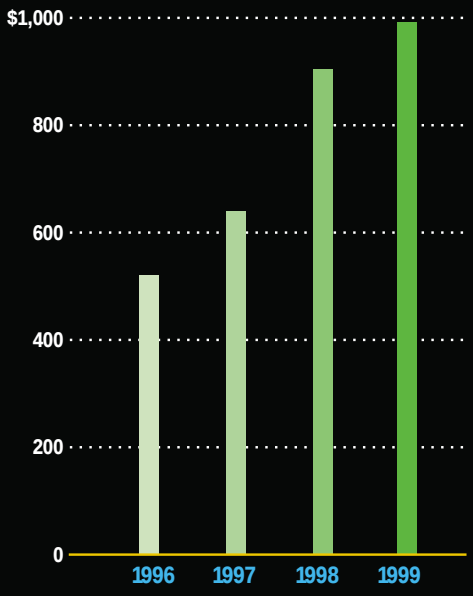

### SHIPMENTS (THOUSANDS OF TONS)




### CAPITAL EXPENDITURES (MILLIONS)




### TOTAL ASSETS (MILLIONS)




**Complete financials begin on page 18.**

**To Our Shareholders, Customers, and Employees:**

In just four short years of operation, Steel Dynamics has made tremendous progress. Beginning in January 1996 with our first shipments of prime steel from our new mini mill at Butler, Indiana, sales have grown rapidly, reaching $619 million in 1999. During this time frame, we have achieved a strong reputation as a quality leader, supplying a broad range of flat-rolled steel products to American industry, including light-gauge, micro-alloyed, and high-strength steels.

Equally important, Steel Dynamics has quickly become one of the most profitable companies in the steel-making community. Following its start-up year, SDI has shown consistent profitability. Operating profits in 1999 (earnings before taxes, interest, and start-up costs) grew to $106 million, up 39 percent over a year earlier. Earnings per share increased 26 percent, from $.65 in 1998 to $.82 in 1999.

From a markets standpoint, though, 1999 was a transition year. Fortunately, the steel-import crisis of 1998 and early 1999 subsided as tariffs and import restrictions were placed on steel that had been unfairly exported to the United States. As a result, demand for domestic steel improved and prices began their recovery. After the first quarter, Steel Dynamics regained sales volume, with prices gradually strengthening toward their pre-crisis levels.

We are proud of SDI's 1999 financial performance, achieved under less-than-favorable market conditions and after accounting for significant start-up costs for new operations. These investments in the future include our planned 1.2-million-ton-per-year structural-steel and rail mill, our Iron Dynamics scrap-substitute operation, and New Millennium Building Systems, a new subsidiary to manufacture steel building components. These projects are expected to provide significant future bottom-line growth.

Our financial accomplishments reflect the success we have achieved in establishing valuable customer relationships, supplying consistently high-quality flat-rolled steel, made-to-order and often formulated to meet unique customer requirements. About 30 percent of our output goes into demanding automotive applications. Our productive and flexible manufacturing capability has resulted not only from the large investments we have made in state-of-the-art steel-making equipment and facilities, but also from the technical and operating expertise of our dedicated workforce.

SDI's operational mettle is exemplified by the outstanding performance in 1999 of our Flat Roll Steel Division at Butler. Under the capable leadership of Mark Millett, the mill produced nearly two million tons of hot-rolled steel. Each ton produced required only four-tenths of a man-hour of labor. Our operating profit of $58 per ton set the pace in the industry. Revenue per mill employee exceeded $1.1 million. I salute Mark and his management team, including the plant's six talented operating managers (pictured with me, at right), and the entire Butler workforce for this extraordinary performance.

While we are extremely pleased with the performance of the Butler mill, we are disappointed with the slower-than-anticipated progress on two new projects. Regulatory approvals and legal challenges to building the structural mill in Whitley County, Indiana, have put that project approximately a year behind our initial schedule. In the meantime, we have prepared the building site and

purchased material and equipment to put the project on a fast-track schedule as soon as the legal and regulatory issues are resolved *(see page 15)*. At Iron Dynamics we faced problems of a different sort. The facility is complete, but we have experienced technical problems with the submerged-arc furnace that have prevented full production until the furnace is retrofitted *(see page 13)*.

SDI is also pleased to be a steel-industry leader in utilizing the Internet for commercial transactions. Our investment in MetalSite over a year ago gives us the opportunity to be an early player in the growing business-to-business e-commerce arena. As a founding partner, we own a minority interest in this exciting new company, which is the leading Internet marketplace for metals trading and auctions. Starting in 1999, Steel Dynamics began offering excess prime and secondary steel for sale on the MetalSite web site. In 2000, we will begin offering prime products for sale.

We look forward to continued revenue and profit growth in the year 2000. We expect near-full-capacity production at our Butler mill, with a healthy mix of revenue provided by both hot bands and value-added products, marketed to an increasing number of customers. At the same time, we are looking forward this year to constructing a very productive, world-class structural and rail mill equipped with the latest steel-producing technology.

Acquiring the best equipment available is just the start of assuring the success of a modern steel company. The real key to success, though, is the talent and experience of a variety of people drawn together to create, fine-tune, maintain, and continually improve this technology. It is a refined blend of expertise in the fields of metallurgy and chemistry, mechanical and electrical engineering, plant layout and design engineering, automation and machine control, computers and network management. We believe the top-notch, talented individuals we have attracted and developed are second to none.

In the following pages, we highlight our 1999 accomplishments through a photo tour of some of our facilities. This tour demonstrates SDI's ability, through its uniquely gifted technical team, to maximize the effectiveness of modern steel-making technologies.

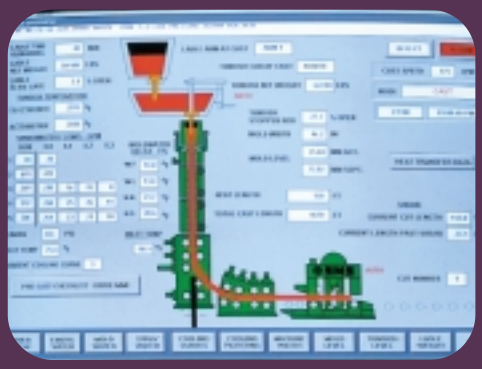
Sincerely,

Keith Busse

*President and Chief Executive Officer*

Pictured with Keith Busse (center) are the Flat Roll Steel Division operations managers responsible for the day-to-day performance of the mill. They are, from left, Bob Soden, manager of engineering and services; Ricky Rollins, melting manager; Glenn Pushis, cold-rolling and coating manager; Ken Kinsey, casting manager; Barry Schneider, hot-mill manager; and Craig Longardner, materials and transportation manager.

# SDI EXCELS in THIN-SLAB-CAST



Computer monitors arrayed in control rooms throughout the mill provide operators with process information transmitted in real-time from multiple sensors. Here, one of the numerous screens in the caster pulpit shows (in red) the path the steel slab takes through the caster and provides feedback on temperatures and other operating parameters.

Above, a glowing orange continuous thin-slab of steel bends to the right as it emerges at the bottom of SDI's Caster Number 2 (see cover photo). At right, on the caster deck, molten steel flows from a ladle into a reservoir, called a tundish, and then into the caster mold.

# ING TECHNOLOGY

Mark Millett, SDI vice president and general manager of the Flat Roll Steel Division, is pictured beside a top-segment caster mold in the maintenance shop. A metallurgical engineer, Mark was instrumental in developing the thin-slab casting technology SDI uses. The inner sleeve of the caster is solid copper.

In the steel mini-mill environment, control of the continuous-casting process is the key to successful high-volume production of flat-rolled steel. Having helped develop continuous-strip production techniques, SDI continues to fine-tune and improve the process. Expertise in operating its twin SMS casters has resulted in production of consistently high-quality thin-slabs while maintaining high equipment utilization, a significant challenge in the casters' hot, harsh operating environment.

Scale and water spray are visible on the top surface after the continuous slab has been sheared.

"Thin-slab" refers to the steel slab just over two inches thick and up to 62 inches wide that is cast from molten steel. Steel flows continuously at 3,000 degrees F through a submerged entry nozzle into a rectangular-shaped casting mold. As the column of steel moves through the caster, cooling water circulates at 3,500 gallons per minute through jackets in the caster mold, and the outer shell of the slab solidifies. Before it exits the last containment segment of the caster, the slab has solidified throughout at a temperature of 1,650 degrees F.

The glowing slab emerges from the bottom of the caster at up to 200 inches per minute. Solid, but pliable, the hot slab bends to make the 90-degree turn, is straightened, then exits between horizontal rollers and is sheared to lengths up to 150 feet. The hot slabs are then transferred through a tunnel furnace to the hot-strip mill, to be rolled into coils of hot-band steel.

# NEURAL NETWORK CONTROLS

This screen shows hot steel slabs queued to enter the rolling mill, waiting in tunnel furnaces. Slabs from caster 1 appear as orange rectangles; slabs from caster 2, green. The rolling-mill operator controls the flow of product into the mill.

Hot-mill supervisor Chris Brennan (top) and electrician David Lewis monitor control circuitry for mill stand F3. SDI personnel are well-versed not only in the mechanical aspects of the mill, but also in power engineering and digital electronics.

# SEVEN-STAND ROLLING MILL

SDI's $100 million hot-rolling mill at Butler, Indiana. The seventh stand, at right above, was installed and commissioned in January 1999.

SDI's seven-stand hot strip mill is a modern engineering marvel. It uses highly sophisticated computer models that determine, in real time, how and where huge forces are to be applied to roll a multi-ton, two-inch-thick steel slab down to a thickness of as little as .043 inches.

The mill harnesses the brute force produced by mammoth 10,000-horsepower drives, deftly applying massive torque to pairs of highly machined eleven-ton work rolls. At each stand, the rolls produce additional reduction in thickness. Steel leaves the seventh stand as fast-moving, continuous sheet to be coiled as hot band.

Rolling-mill pulpit operator Tony Christian (at right), shown training J.D. Pulver, manages job flow through the hot mill. They overlook the hot mill from an elevated, glass-enclosed control booth called a "pulpit." Hot slabs enter the mill from a preheating tunnel furnace to their left, and processed strip exits through a quenching spray for coiling to their right.

As the first few feet of the red-hot slab enter the mill, sensors determine the slab's dimensions and temperatures. These data, combined with the specific metallurgical composition of the slab, are fed into a high-speed computer. The neural-network model instantly calculates the settings for this specific job based on historical data and recent experience of the mill's operation.

The computer program generates instructions to precisely adjust each of the seven mill stands to produce the specified gauge of steel with optimal profile and flatness. At once, commands are transmitted to each of the stand's digital controllers. By the time the head-end of the slab reaches the first of the seven reducing stands, servo-hydraulic mechanisms have set the work rolls in proper position. The calculated compressive force is dynamically applied to ensure the desired profile within a tight tolerance across the sheet.

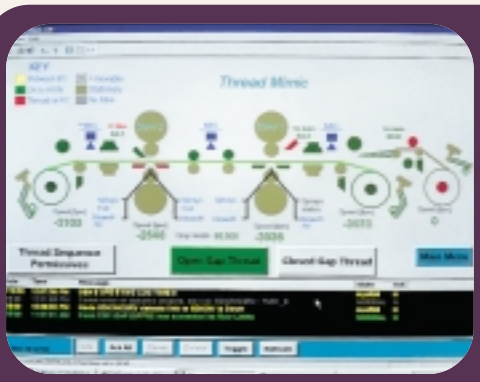
# TECHNOLOGY *and* TEAMWORK

Rex Fuller logs a job from the pulpit overlooking the cold-reversing mill. Computer screens display customer orders and allow him to resequence the jobs to optimize utilization of the mill. Other screens provide detailed information about the mill's operating status.

For the first pass in reducing its thickness, pickled gray hot-rolled steel feeds into the cold-reversing mill (from right side of photo). On the reversing pass, shiny light-gauge steel, as thin as 0.14 inches, is coiled onto a take-up mandrel (center of photo). Here, Dave Heller, standing at the mill's control panel, talks to the operator in the pulpit.

# ARE KEY to COLD-MILL OUTPUT

Steel Dynamics' two-stand cold-reversing mill provides an excellent example of what makes SDI one of the most efficient of America's steel producers. It is the combination of state-of-the-art steel-processing technology and highly skilled teams of employees. The significant capital investment in a heavily automated, highly efficient mill allows SDI to process over a million tons of steel per year through this one machine. Making it work, however, depends on dedicated workers whose tasks, in addition to processing the product, include monitoring product quality, maintaining the equipment, and changing out rolls and other machine parts.

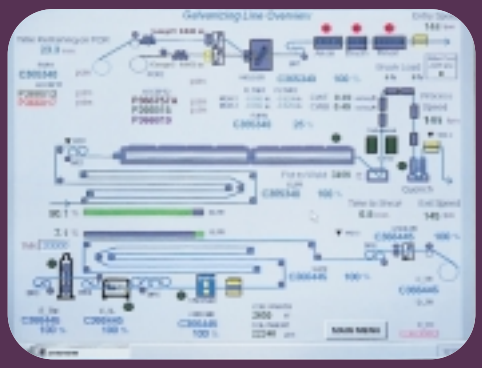


The reversing-mill pulpit operator monitors the mill's operation using sophisticated computer technology. This screen shows the steel's progress through the mill and provides strip, shape, and gauge information to the operator.

As in other areas at Steel Dynamics, cold-mill employees work together as a crew. SDI crews are led by a supervisor and include a lead operator who oversees operations and manages work flow from a control room, or "pulpit." On the floor are one or two helpers who control and monitor the machine's operation. A technician, such as an electrician, is typically also a part of the team. Team members stay in constant communication. When a problem develops, the whole team pitches in to resolve it. If there is a malfunction in the cold mill, for example, the mill is locked out, and operator and supervisor join the others to attack the problem. Each member of the crew contributes process knowledge and skills. All work together to solve the problem and resume production.

The cold-reversing mill is part of SDI's finishing facility, which was completed in 1997 at a cost of $176 million. The facility also includes a continuous-pickling line (which descales hot-rolled steel for further reduction or coating), annealing facilities, a temper mill, and two galvanizing lines. The finishing facility is contiguous to the company's hot mill and is part of the Flat Roll Steel Division.

# INFORMATION TECHNOLOGY



The status of the entire galvanizing line is shown on CRT screens. This screen provides operators a continuous visual readout of conditions along the line, including line speed, temperatures, and coiling status.

From a computer console on the shop floor, entry operator Steve Shank (at left) monitors the feeding of steel sheet into the galvanizing operation. Above, he controls the welding of the tail-end of a coil to the head-end of the next coil to be processed, to provide continuous material flow. Using automated equipment, the welding process takes less than a minute.

# BOOSTS STEEL PRODUCTION

After coating, a ribbon of cold-rolled galvanized steel shines brightly as it moves toward the coiler.

It could be said that everyone working at the Butler mill is a computer operator, and that everyone is a quality specialist. This is because virtually all employees use computer terminals in their work, and virtually everyone participates directly to influence the quality of the product produced for SDI's customers.

Steel Dynamics takes full advantage of a range of computers—and a wide-area network linking all parts of the mill—as powerful tools to help human operators stay on top of their work. Man-machine interface is made possible by level-1 (machine-level) digital processing at virtually every operation. These systems warn of problems and help diagnose them. They provide information that helps personnel decide on process changes and adjustments. They funnel vital information back and forth between man and machine.

Throughout the manufacturing process, the mill's level-2 (facility-wide) computer system controls activities, captures and stores detailed information on processes, equipment and material utilization, as well as work in progress. Real-time capture of production data enables operating results to be fed to the company's level-3 (business-level) computer. This allows timely feedback of operating results to management and employees—calculating incentive bonuses for payment in the next pay period, for example—and provides myriad analyses of operating performance. It also speeds the monthly calculation of financial performance.

Without these tools to help coordinate schedules and keep track of information, the mill's operations would be much less efficient. With them, everyone up and down the line keeps abreast of work flow, the status of equipment, and work in progress, greatly enhancing the mill's productivity. Computer-assisted monitoring and control of production processes, combined with inspectors' visual observations and operator skill, result in production of consistently high-quality steel.

# IRON DYNAMICS PIONEERS

Sensors within and around the submerged-arc furnace provide critical status information to operators. Through various CRT screens, they monitor temperatures and the atmosphere inside the furnace.

Operator Chris Morgan monitors a flow of molten pig iron tapped from Iron Dynamics' submerged-arc furnace (SAF). Typically, a heat of 70 tons of iron takes 25 minutes to flow from the furnace, down a trough, and into a large preheated ladle positioned below the tapping deck.

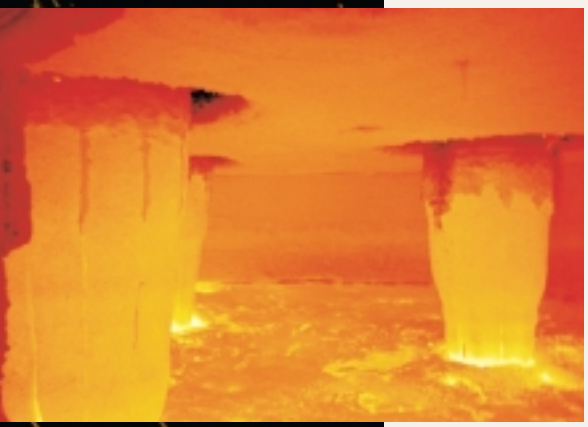
# SCRAP-SUBSTITUTE TECHNOLOGY

Iron Dynamics, a wholly owned subsidiary of Steel Dynamics, was formed in 1996 to commercialize a new process to convert iron ore into liquid pig iron. A low-cost substitute for steel scrap would enhance SDI's profitability, particularly during periods of high scrap prices, while providing greater flexibility and efficiencies in steel-making operations.

Larry Lehtinen, SDI vice president and general manager of Iron Dynamics, has spearheaded the development and construction of IDI. A technical developer of the Iron Dynamics processes, Larry's innovations have led to several patents for the company.

Construction of a large, multi-building facility capable of producing 470,000 metric tonnes of iron annually was completed in 1999. Feeding ladles of molten iron to the melt shop in the adjacent Steel Dynamics mill, IDI at full capacity is expected to provide up to 20 percent of the mill's feed stock.

The Iron Dynamics process uses a unique iron-ore/coal-pelletizing operation, the world's largest natural-gas-fired rotary-hearth furnace (RHF) for direct reduction of iron (DRI), and a large submerged-arc electric furnace (SAF) for smelting. Sophisticated conveyors and other materials-handling equipment tie these operations together in a highly automated environment.



Inside the SAF, three giant electrodes liquefy hot direct-reduced iron pellets.

The plant began operation in 1999 with good preliminary results, especially in controlling the DRI process and the RHF. Difficulties encountered with the SAF impeded full start up, which will be delayed until modifications to the SAF can be made in the second half of 2000. Despite the difficulties, significant progress has been made in perfecting and developing the technology and operating procedures for both the rotary-hearth direct-reduction process and the submerged-arc furnace.

# STRUCTURAL TEAM POISED

Surrounded by some of the machinery that has been delivered for the new mill, Structural Steel Division general manager Dick Teets (center) discusses the site plan with Roy Perala, manager of rolling and finishing, and Kevin Bort, manager of engineering services.

Steel girders and other building components are deployed on the Whitley County site for construction of the multi-acre finishing mill. The entire site comprises 470 acres.

# TO BUILD SECOND SDI MILL

SDI's Structural Steel Division is making solid progress despite a disappointing delay in obtaining governmental approval to begin construction of its new mill in Whitley County, in northeastern Indiana. The mill will produce wide-flange beams, pilings, and other long structural shapes. Additionally, in 1999 SDI announced the mill's design has been modified to permit production of rails up to 330 feet in length.

Tom Morken and Stan Pulver, who is operating the forklift, keep busy unloading and moving building materials and manufacturing equipment at the mill site. A limited workforce has been employed until actual construction begins.

The State of Indiana issued the mill's air-quality construction permit in July 1999. In August, a local construction-trades union filed a suit contending the permit had been issued improperly. The federal EPA has yet to resolve the issue. Believing the suit is without merit, SDI expects to receive approval for construction and operation of the mill. In the meantime, the company has proceeded with extensive site preparation.

All major materials and equipment have been ordered, and much of the needed equipment has been delivered to the site. By the end of 1999, $127 million had been invested in the project's property and equipment. The total project cost is estimated to be about $315 million. Because of the long planning cycle and the availability of materials and equipment on site, SDI expects, once approvals are obtained, to construct the mill on an accelerated schedule and to begin operations within thirteen months of the start of construction.

Stacks of steel rail await use in the several miles of railroad track that will serve the new mill. Ultimately, rail also will be a product of the Whitley County mill.

The division's management and technical team have designed the mill to employ state-of-the-art steel-making technology and have configured its layout to be among the most productive structural/rail mills in the world. At the same time, care has been taken to assure minimal environmental impact. Its location will put the mill in close proximity to the Midwest's strong construction-related markets and to North America's railroad centers.

# NEW AT SDI

New Millennium Building Systems

## SDI invests in building-products subsidiary

Under construction near SDI's Flat Roll Steel Division mill at Butler, Indiana, is New Millennium Building Systems' 225,000-square-foot manufacturing facility. Co-owned by Steel Dynamics and New Process Steel Corporation, this new enterprise will produce steel joists, trusses and girders, and roof and floor decking for use in non-residential construction. The plant is expected to be in operation by mid-year 2000.

www.steeldynamics.com


## Web site provides information updates

Steel Dynamics' corporate web site is now online. The site provides another means by which the public can obtain information about the company and its processes and operations.