Special Steels
India Business Unit
1. Gerdau Group

2. Special Steels Business Unit

3. India Business Unit
Global Presence

• 111 years in business
• Production facilities in 14 countries
• 60 steel mills
• Near 46,000 employees
• Crude steel capacity of 25.3 million tons
• Ranked 10th in the world by 2010 steel output
• 2nd largest long steel producer in the world and the 1st in the Americas
Company’s Philosophy

Vision

To be a GLOBAL ORGANIZATION and a BENCHMARK in any business we conduct

Mission

To CREATE VALUE for our customers, shareholders, employees, and communities by operating as a SUSTAINABLE steel business

Values

Be the CUSTOMERS choice

SAFETY above all

Respected, engaged and fulfilled EMPLOYEES

Pursuing EXCELLENCE with SIMPLICITY

Focus on RESULTS

INTEGRITY with all stakeholders

Economic, social and environmental SUSTAINABILITY
110 Years in Business

Expansion in Brazil

1901: 1st operation: (nail factory)

1900: 1st mill acquisition (Riograndense)

1948: 1st mill acquisition (Riograndense)

Market Share Increase
- Diversification / downstream
- Own distribution network
- Acquisition of one mill (Pernambuco)

Acquisition of one mill (Paraná)
Construction of a new mill (Rio de Janeiro)

Construction of 2 new mills (Paraná and Ceará)

Expansion of Riograndense (construction of 2nd steel mill)

Acquisition of 3 mills (Rio de Janeiro, Minas Gerais and Bahia)

Acquisition of Piratini (Specialty steel)

Second mill in Minas Gerais

Entering in Açominas

Expansion Abroad

Construction of a steel mill (São Paulo)

1900: 1st mill acquisition abroad (Uruguay)

1948: 1st mill acquisition in North America (Canada)

Mills acquisitions (Chile, Canada, Argentina and USA)

Acquisitions in USA (Chaparral, MacSteel)

Entering in Europe and Asia (Spain and India)

Expansion in Latin America

Construction of a new mill abroad (TAMCO)
2011 Top Steel Producers

1° ArcelorMittal
2° Heibei Group
3° Baosteel Group
4° POSCO
5° Wuhan
6° Nippon Steel
7° Shagang Group
8° Shougang Group
9° JFE
10° Ansteel Group
11° Shangdong Group
12° Tata Steel
13° United States Steel
14° Gerdau
15° Nucor
16° ThyssenKrupp
17° Evraz
18° Maanshan
19° Benxi
20° Hyundai

Million metric tons crude steel production

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<tbody>
<tr>
<td>1</td>
<td>ArcelorMittal</td>
<td>97.2</td>
<td></td>
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<tr>
<td>2</td>
<td>Heibei Group</td>
<td>44.4</td>
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<tr>
<td>3</td>
<td>Baosteel Group</td>
<td>43.3</td>
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<td>4</td>
<td>POSCO</td>
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<td>5</td>
<td>Wuhan</td>
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<tr>
<td>7</td>
<td>Shagang Group</td>
<td>31.9</td>
<td></td>
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<td>8</td>
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<td>United States Steel</td>
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<td>14</td>
<td>Gerdau</td>
<td>20.5</td>
<td></td>
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<tr>
<td>15</td>
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<td>19.9</td>
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<tr>
<td>16</td>
<td>ThyssenKrupp</td>
<td>17.9</td>
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<tr>
<td>17</td>
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<td>18</td>
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<td>16.7</td>
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<td>19</td>
<td>Benxi</td>
<td>16.5</td>
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<tr>
<td>20</td>
<td>Hyundai</td>
<td>16.3</td>
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</table>

Source: World Steel Association
www.worldsteel.org
2010 Top Long Steel Producer’s Capacities

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Capacity (Million metric tons long steel)</th>
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</thead>
<tbody>
<tr>
<td>1º</td>
<td>ArcelorMittal</td>
<td>51.2</td>
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<tr>
<td>2º</td>
<td>Gerdau</td>
<td>22.6</td>
</tr>
<tr>
<td>3º</td>
<td>Evraz</td>
<td>18.7</td>
</tr>
<tr>
<td>4º</td>
<td>Tata Steel</td>
<td>11.1</td>
</tr>
<tr>
<td>5º</td>
<td>Nippon Steel</td>
<td>10.8</td>
</tr>
<tr>
<td>6º</td>
<td>Industrial Union of Dombass</td>
<td>10</td>
</tr>
<tr>
<td>7º</td>
<td>JFE</td>
<td>9.4</td>
</tr>
<tr>
<td>8º</td>
<td>Nucor</td>
<td>8.9</td>
</tr>
<tr>
<td>9º</td>
<td>Riva</td>
<td>8.8</td>
</tr>
<tr>
<td>10º</td>
<td>Celsa Group</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Source: Steel on the Net
www.steelonthenet.com
Products and End Users

**Products**

- Billets, blooms & slabs
- Merchant bars
- SBQ
- Rebars
- Fabricated steel
- Heavy structural shapes
- Wire-rod
- Wires
- Nails

**End Users**

- Housing
- Infrastructure
- Agricultural sector
- Automotive industry
- Oil and gas sector
- Shipbuilding
- Wind power generation
- Mining
- Other industrial sectors
## Key Financial Figures

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Net Revenues (US$ million)</strong></td>
<td>4,972</td>
<td>20,233</td>
<td>18,798</td>
<td>13,408</td>
<td>22,618</td>
</tr>
<tr>
<td><strong>Net Income (US$ million)</strong></td>
<td>215</td>
<td>1,199</td>
<td>1,471</td>
<td>577</td>
<td>2,832</td>
</tr>
<tr>
<td><strong>Total assets (US$ million)</strong></td>
<td>26,826</td>
<td>28,499</td>
<td>25,683</td>
<td>25,605</td>
<td>33,914</td>
</tr>
<tr>
<td><strong>Total shipments (thousand tonnes)</strong></td>
<td>4,725</td>
<td>19,164</td>
<td>17,363</td>
<td>13,987</td>
<td>19,118</td>
</tr>
<tr>
<td><strong>Total Output (thousand tonnes)</strong></td>
<td>4,940</td>
<td>19,623</td>
<td>17,852</td>
<td>13,509</td>
<td>19,599</td>
</tr>
<tr>
<td><strong>EBITDA (US$ million)</strong></td>
<td>545</td>
<td>2,658</td>
<td>3,114</td>
<td>1,999</td>
<td>5,488</td>
</tr>
<tr>
<td><strong>EBITDA Margin (%)</strong></td>
<td>11%</td>
<td>13%</td>
<td>17%</td>
<td>14%</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Gross Margin (%)</strong></td>
<td>12%</td>
<td>14%</td>
<td>18%</td>
<td>17%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Investment Plan (2011 – 15)

USD 6.05 billion in five years

- Heavy plate rolling mill at Ouro Branco unit
  
  | Investment | USD 1.0 billion |
  | Installed capacity | 1 million tons by the end of 2012 |
  | Goal | grow in oil and gas, shipbuilding and construction sectors |

- Structural beam rolling mill expansion at Ouro Branco unit
  
  | Investment | USD 57 million |
  | Future capacity | 700 thousand tons in 2011 |

- Commercialization of iron ore resources
  
  | Annual Production | Expansion of mining capacity to 7 million tons |
  | Goal | Self sufficiency for 100% of Ouro Branco unit iron ore needs |

- Wire rod and rebar rolling mills in Santa Cruz unit
  
  | Investment | USD 1.5 billion |
  | Installed capacity | Additional 600 thousand tons in 2013 |
  | Goal | Participate in demand due to FIFA World Cup and Rio Olympics |
Corporate Governance

General Assembly

Board of Directors

Gerdau Executive Committee (GEC)

Functional Processes

Business Units
Board of Directors

President
Dr. Jorge Gerdau Johannpeter

Vice-Presidents
Germano H. Gerdau Johannpeter
Klaus Gerdau Johannpeter
Frederico C. Gerdau Johannpeter

Counselors
Affonso Celso Pastore
André Pinheiro de Lara Resende
Oscar de Paula Bernardes Neto
Cláudio Gerdau Johannpeter
André Gerdau Johannpeter
Alfredo Huallem

General Secretary: Expedito Luz
Gerdaú Executive Committee (GEC)

ANDRÉ Gerdaú Johannpeter
CEO

CLÁUDIO Gerdaú Johannpeter
COO

Osvaldo Burgos SCHIRMER
CFO

EXPEDITO Luz
Executive VP

Manoel VITOR de Mendonça Filho
Executive VP

Ricardo Giuzeppe MASCHERONI
Executive VP

FRANCISCO Deppermann Fortes
Executive VP
Corporate Governance

- General Assembly
- Board of Directors
- Gerdau Executive Committee (GEC)

Functional Processes

Business Units
Business Operations

GERDAU

**Long Steel**

<table>
<thead>
<tr>
<th>Region</th>
<th>Product Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Rebars, Fabricated Steel, Nails, Billets, blooms &amp; slabs, Heavy Structural Shapes, Hot Rolled Heavy Plates</td>
</tr>
<tr>
<td>Latin America North</td>
<td>Wire rod, Merchant Bars, SBQ - Bar, SBQ - Wire rod</td>
</tr>
<tr>
<td>Latin America South</td>
<td>Wires, Rolling Mill Rolls, Forged and Cast Parts</td>
</tr>
</tbody>
</table>

**Brazil**

<table>
<thead>
<tr>
<th>Long and Flat Steel</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>34%</td>
<td>Rebars, Fabricated Steel, Nails, Billets, blooms &amp; slabs, Heavy Structural Shapes, Hot Rolled Heavy Plates</td>
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</tbody>
</table>

**Special Steels**

<table>
<thead>
<tr>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBQ - Bar, SBQ - Wire rod, Rolling Mill Rolls, Forged and Cast Parts</td>
</tr>
</tbody>
</table>

% of 2011 net sales
1. Gerdau Group

2. Special Steels Business Unit

3. India Business Unit
Organizational Chart

GERDAU

Long Steel
- North America: 34%
- Latin America North: 6%
- Latin America South: 6%

Brazil
- Long and Flat Steel: 34%

Special Steels
- 20%

Mr. Mark Marcucci
Special Steels and India VP

Mr. Luis Colembergue
Operations

Brazil
- Mr. Joaquim Bauer

Spain
- Mr. Jose Jainaga

USA
- Mr. Jack Finlayson

India
- Mr. Arvind Mathur

% of 2011 net sales
Locations

Special Steels Profile

- 12 steel mills in 3 countries + 1 joint venture steel mill under construction in India
- Ranked 2nd in 2008 SBQ global sales
- Largest supplier of SBQ to the automotive industry in the world
- Installed capacity over 3.7 million metric tons of crude steel
- Near 8,100 employees
20+ Years of Special Steel Expertise

Expansion in Brazil

- **Improvements** in the continuous caster at Piratini
- **Installation** of new rolling mill at Piratini
- **Modernization** of melt shop at Piratini

- **Piratini** mill acquisition

Expansion Abroad

- **Entry in Europe**
  - Acquisition of Sidenor

- **Entry in North America**
  - Acquisition of MacSteel

- **Entry in India**
  - Kalyani Gerdau Steel Ltd. Established (JV Kalyani Group)

- **US$ 1.5 billion in 2011 - 13**

Construction of a new rolling mill in Pindamonhangaba

Monroe Melt Shop Improvements
## Investment Plan (2012 – 14)

USD 1.5 billion in three years

<table>
<thead>
<tr>
<th>Special steel rolling mill in Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment</strong></td>
</tr>
<tr>
<td><strong>Installed capacity</strong></td>
</tr>
<tr>
<td><strong>Goal</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Improvement in melt shop with new continuous caster in USA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment</strong></td>
</tr>
<tr>
<td><strong>Future capacity</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity expansion at 2 different mills in USA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment</strong></td>
</tr>
<tr>
<td><strong>Future Capacity</strong></td>
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<tr>
<td><strong>Goal</strong></td>
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<table>
<thead>
<tr>
<th>Investments in Kalyani Gerdauf JV in India</th>
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</thead>
<tbody>
<tr>
<td><strong>Investment</strong></td>
</tr>
<tr>
<td><strong>Future Capacity</strong></td>
</tr>
<tr>
<td><strong>Goal</strong></td>
</tr>
</tbody>
</table>
## General Info

- **Company Name:** Gerdau
- **Steel Mills:** 4
- **Downstream Units:** 0
- **Representative Offices:** 1
- **Employees:** 4,200
- **Crude Steel Capacity (1,000 metric t):** 1,380
- **Rolled Steel Capacity (1,000 metric t):** 1,340
- **Rolling Mill Rolls Capacity (1,000 metric t):** 40
- **Product Portfolio:** SBQ, Stainless and Rolling Mill Rolls
Brazil

Steel Mills

<table>
<thead>
<tr>
<th>Location</th>
<th>Crude Steel Capacity</th>
<th>Rolled Steel Capacity</th>
<th>Rolling Mill Rolls Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pindamonhanga</td>
<td>620,000 t</td>
<td>570,000 t</td>
<td>40,000 t</td>
</tr>
<tr>
<td>Sorocaba</td>
<td>30,000 t</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mogi das Cruzes</td>
<td>360,000 t</td>
<td>190,000 t</td>
<td></td>
</tr>
<tr>
<td>Charqueadas</td>
<td>400,000 t</td>
<td>550,000 t</td>
<td>25,000 t</td>
</tr>
</tbody>
</table>

- Steel Mills
- Representative Offices
## Industrial Capabilities – SBQ and Stainless

### Melt Shop
- **Pindamonhangaba**
  - EAF: 95 t/heat
  - Degassing: VD
  - Ingot casting: 3.2 to 6.9 t
  - Billet casting: 155 mm

- **Charqueadas**
  - EAF: 65 t/heat
  - Degassing: VD/VOD
  - Ingot casting: 1.3 to 7.3 t
  - Billet casting: 150 and 240 mm

- **Mogi das Cruzes**
  - EAF: 70 t/heat
  - Degassing: VD
  - Ingot casting: 155 and 185 mm

- **Sorocaba**
  - EAF: N/A
  - Degassing: N/A
  - Ingot casting: N/A

### Rolling Mill
- **Round bars**
  - 17.4 to 228.6 mm
  - 66.7 to 450 mm

- **Square bars**
  - 15.8 to 203 mm
  - 76.2 to 129 mm

- **Flat bars**
  - 5.5 to 33.3 mm

- **Wire Rod**
  - 5.5 to 30.1 mm

- **Other (special profile)**
  - 4.4 to 60 x 17 to 145 mm

### Forging Mill
- **Round bars**
  - 152.4 to 560 mm

- **Square bars**
  - 63.5 to 410 mm

### Cold Finishing
- **Turning**
  - 2 to 31 mm

- **Drawing**
  - 4 to 30 mm

- **Grinding**
  - 10 to 100 mm

### Heat Treatment
- **Q+T, Annealing and Spheroidizing**
  - Types: N/A

### Inspection Lines
- **Sizes**
  - 10 to 76 mm
  - 10 to 105 mm
  - 14 to 130 mm

- **Number of lines**
  - 8
  - 5
  - 2
Spain

**General Info**

- **Company Name:** Gerdau Sidenor
- **Steel Mills:** 5
- **Downstream Units:** 5
- **Representative Offices:** 5
- **Employees:** 2,600
- **Crude Steel Capacity (1,000 metric t):** 1,080
- **Rolled Steel Capacity (1,000 metric t):** 1,040
- **Forged and Casted Parts Capacity (1,000 metric t):** 70
- **Product Portfolio:** SBQ, Stainless, Rolling Mill Rolls and Forged and Cast Parts
## Steel Mills

### Basauri
- Crude Steel Capacity: 690,000 t
- Rolled Steel Capacity: 360,000 t

### Reinosa
- Crude Steel Capacity: 250,000 t
- Rolled Steel Capacity: 150,000 t
- Parts Capacity: 70,000 t

### Azkoitia
- Rolled Steel Capacity: 340,000 t

### Vitoria
- Rolled Steel Capacity: 180,000 t

### Legazpi
- Crude Steel Capacity: 140,000 t
- Rolled Steel Capacity: 10,000 t
### Industrial Capabilities – SBQ and Stainless

#### Melt Shop
<table>
<thead>
<tr>
<th>Process</th>
<th>Basauri</th>
<th>Reinosa</th>
<th>Vitoria</th>
<th>Azkoitia</th>
<th>Legazpi</th>
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</thead>
<tbody>
<tr>
<td>EAF</td>
<td>145 t/heat</td>
<td>70 t/heat</td>
<td></td>
<td></td>
<td>50 t/heat</td>
</tr>
<tr>
<td>Degassing</td>
<td>VD/VOD</td>
<td>VD/AD</td>
<td></td>
<td></td>
<td>VD/AD</td>
</tr>
<tr>
<td>Ingot casting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.1 t</td>
</tr>
<tr>
<td>Billet casting</td>
<td>155 and 180 mm</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bloom casting</td>
<td>300 x 400 mm</td>
<td></td>
<td></td>
<td></td>
<td>310 x 240 mm</td>
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#### Rolling Mill
<table>
<thead>
<tr>
<th>Type</th>
<th>Basauri</th>
<th>Reinosa</th>
<th>Vitoria</th>
<th>Azkoitia</th>
<th>Legazpi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round bars</td>
<td>25 to 100 mm</td>
<td>100 to 230 mm</td>
<td></td>
<td>20 to 200 mm</td>
<td></td>
</tr>
<tr>
<td>Square bars</td>
<td>70 to 170 mm</td>
<td></td>
<td></td>
<td>65 to 200 mm</td>
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<tr>
<td>Flat bars</td>
<td></td>
<td></td>
<td></td>
<td>6 to 92 x 50 to 350 mm</td>
<td></td>
</tr>
<tr>
<td>Wire Rod</td>
<td></td>
<td></td>
<td></td>
<td>5.5 to 38 mm</td>
<td></td>
</tr>
<tr>
<td>Other (flat steel)</td>
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<td></td>
<td></td>
<td></td>
<td>1.5 to 15 x 1000 x 2000 mm</td>
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</table>

#### Forging Mill
<table>
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<tr>
<th>Type</th>
<th>Basauri</th>
<th>Reinosa</th>
<th>Vitoria</th>
<th>Azkoitia</th>
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</thead>
<tbody>
<tr>
<td>Round bars</td>
<td>220 to 1500 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Square bars</td>
<td>350 to 2500 mm</td>
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#### Cold Finishing
<table>
<thead>
<tr>
<th>Type</th>
<th>Basauri</th>
<th>Reinosa</th>
<th>Vitoria</th>
<th>Azkoitia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning</td>
<td>20 to 100 mm</td>
<td>95 to 300 mm</td>
<td>19 to 30 mm</td>
<td>20 to 45 mm</td>
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<tr>
<td>Drawing</td>
<td>35 to 88,9 mm</td>
<td></td>
<td>5 to 36 mm</td>
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</tr>
<tr>
<td>Grinding</td>
<td></td>
<td></td>
<td>7 to 40 mm</td>
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#### Heat Treatment
<table>
<thead>
<tr>
<th>Types</th>
<th>Basauri</th>
<th>Reinosa</th>
<th>Vitoria</th>
<th>Azkoitia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q+T and Annealing</td>
<td></td>
<td></td>
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</table>

#### Inspection Lines
<table>
<thead>
<tr>
<th>Sizes</th>
<th>Basauri</th>
<th>Reinosa</th>
<th>Vitoria</th>
<th>Azkoitia</th>
</tr>
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<tbody>
<tr>
<td>25 to 100 mm</td>
<td></td>
<td></td>
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<tr>
<td>10 to 220 mm</td>
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<tr>
<td>20 to 200 mm</td>
<td></td>
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<tr>
<td>20 to 80 mm</td>
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<tr>
<td>Number of lines</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>
Spain

**Downstream Units**

- **Maltzaga**
  - Business: Cold drawing and turning

- **Legutiano**
  - Business: Cold drawing

- **Forjanor Elgeta**
  - Business: Forging

- **Forjanor Villalba**
  - Business: Forging

- **Polinya**
  - Business: Cold drawing and turning

- **Steel Mills**
- **Representative Offices**
- **Downstream units**
General Info

- Company Name: Gerdau MacSteel
- Steel Mills: 3
- Downstream Units: 6
- Representative Offices: 2
- Employees: 1,700
- Crude Steel Capacity (1,000 metric t): 1,180
- Rolled Steel Capacity (1,000 metric t): 1,100
- Product Portfolio: SBQ
USA Steel Mills

**Jackson**
- Crude Steel Capacity: 250,000 t
- Rolled Steel Capacity: 230,000 t

**Monroe**
- Crude Steel Capacity: 470,000 t
- Rolled Steel Capacity: 430,000 t

**Fort Smith**
- Crude Steel Capacity: 460,000 t
- Rolled Steel Capacity: 440,000 t

- Steel Mills
- Representative Offices
- Downstream units
# Industrial Capabilities – SBQ

<table>
<thead>
<tr>
<th>Melt Shop</th>
<th>• Fort Smith</th>
<th>• Jackson</th>
<th>• Monroe</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAF</td>
<td>54 t/heat VD</td>
<td>46 t/heat VAD</td>
<td>128 t/heat VAD</td>
</tr>
<tr>
<td>Degassing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingot casting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billet casting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bloom casting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sizes</td>
<td>178 and 237 mm</td>
<td>160 and 195 mm</td>
<td>152 mm</td>
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</table>

<table>
<thead>
<tr>
<th>Rolling Mill</th>
<th>• Fort Smith</th>
<th>• Jackson</th>
<th>• Monroe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round bars</td>
<td>44.4 to 153 mm</td>
<td>25.4 to 108 mm</td>
<td>14.2 to 82.55 mm</td>
</tr>
<tr>
<td>Square bars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flat bars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wire Rod</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Forging Mill</th>
<th>• Fort Smith</th>
<th>• Jackson</th>
<th>• Monroe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round bars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Square bars</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cold Finishing</th>
<th>• Fort Smith</th>
<th>• Jackson</th>
<th>• Monroe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning</td>
<td>28 to 132 mm</td>
<td>25.4 to 88.9 mm</td>
<td>19.05 to 82.5 mm</td>
</tr>
<tr>
<td>Drawing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grinding</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Heat Treatment</th>
<th>• Fort Smith</th>
<th>• Jackson</th>
<th>• Monroe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types</td>
<td>Annealing and Spheroidizing</td>
<td>Annealing and Spheroidizing</td>
<td>Annealing and Spheroidizing</td>
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</table>

<table>
<thead>
<tr>
<th>Inspection Lines</th>
<th>• Fort Smith</th>
<th>• Jackson</th>
<th>• Monroe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes</td>
<td>31.8 to 127 mm</td>
<td>22 to 85 mm</td>
<td>25 to 82.5 mm</td>
</tr>
<tr>
<td>Number of lines</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
USA

Downstream Units

- **Lansing - Basset**
  - Business:
    - Forged parts coating and heat treating

- **Lansing – Mt. Hope**
  - Business:
    - Forged parts coating and heat treating

- **Pleasant Prairie**
  - Business:
    - Surface treatment (Nitrosteel)

- **Huntington**
  - Business:
    - Heat treatment (Quench & temper)

- **North Vernon**
  - Business:
    - Forged parts coating and heat treating

- **Canton**
  - Business:
    - Forged parts coating and heat treating
**Product Portfolio: SBQ**

**Products**
- Hot Rolled Bars
  - Rounds
  - RCS
  - Flats
  - Special Profiles
- Wire Rod
  - Coils
- Forged Bars
  - Rounds
  - RCS
  - Flats

**Applications**
- **Automotive**
  - Powertrain
  - Suspension
  - Steering
- **Non-Automotive**
  - Agricultural equipment
  - Energy (oil and gas; wind power)
  - Mining
  - Trains
  - Heavy machinery

**Grades**
- Carbon
- Alloyed
- Micro alloyed
- Free cutting
  - International specifications (SAE, DIN, AFNOR and others)
  - Customers specifications
Some of Our Valued Customers
Vehicles in Which Gerdau Steel Can be Found
Research and Development

General Info

- 3 research centers (Brazil, Spain and USA)
- The second best research center in the steel industry in Europe
- The best research center in the long steel industry in the Americas
- 200 engineers working with product and process development
- 3,000 different steel grades every year
- 100 process development projects developed in 2007
- 1,000 product development projects in 2007
  (PPAP - Production Part Approval Process)
Areas of Expertise

Steel for Automotive Components

- Conrods
- Crankshafts
- Camshafts
- Gears
- Constant velocity joints (CVJs)
- Gear racks
- Drive shafts
- Springs
- Shock absorbers
- Bearings
- Fasteners
## Areas of Expertise

### Steel for Non-Automotive Sectors

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Applications</th>
</tr>
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<tbody>
<tr>
<td><strong>Agricultural</strong></td>
<td>- Tractors components</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td>- Harvester blades</td>
</tr>
<tr>
<td></td>
<td>- Subsea equipments components</td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td>- Mooring chains for offshore rigs</td>
</tr>
<tr>
<td>(Wind Power, Oil and</td>
<td>- Fasteners for wind power equipment</td>
</tr>
<tr>
<td>Gas)</td>
<td></td>
</tr>
<tr>
<td><strong>Mining</strong></td>
<td>- Grinding bars</td>
</tr>
<tr>
<td></td>
<td>- Electrodes for aluminum production</td>
</tr>
<tr>
<td><strong>Trains</strong></td>
<td>- Springs</td>
</tr>
<tr>
<td></td>
<td>- Axles</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>- Hand tools</td>
</tr>
<tr>
<td></td>
<td>- Shafts for electric motors</td>
</tr>
<tr>
<td>Projects and Partnerships with Think Tanks</td>
<td></td>
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<tr>
<td>--------------------------------------------</td>
<td></td>
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<tr>
<td><strong>BFI-VDEH</strong></td>
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<tr>
<td>Fraunhofer-Institut</td>
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<td>IMA GmbH Dresden</td>
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<td><strong>CSM</strong></td>
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<td>Istituto Nazionale Galileo Ferraris</td>
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<td><strong>IAS</strong></td>
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<td>Instytut Metallurgii Zelaza</td>
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<td><strong>ISQ</strong></td>
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<td><strong>Senai Cetemp</strong></td>
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<tr>
<td><strong>CRM</strong></td>
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<td><strong>ASPPRC</strong></td>
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<td><strong>ASPEX</strong></td>
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**National Flags:**
- Germany
- Brazil
- France
- Italy
- Spain
- USA
### Projects and Partnerships with Universities

<table>
<thead>
<tr>
<th>Germany</th>
<th>Univ. Aachen</th>
<th>Univ. Freiberg</th>
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<tbody>
<tr>
<td>Czech</td>
<td>Univ. BRNO</td>
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<tr>
<td>Brazil</td>
<td>UFRGS</td>
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<td>Spain</td>
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<td>Univ. Pisa</td>
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<tr>
<td>UK</td>
<td>Univ. Bristol</td>
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Projects and Partnerships with Companies

- Germany
  - ALD
  - Dillinger
  - Georgsmarienhutte
  - Saarstahl
  - TKN
  - TKS

- Italy
  - Acciai Speciali Terni
  - Cogne
  - Gianetti-Magnetto

- Austria
  - Profilarbed (ArcelorMittal)
  - Corus

- Spain
  - Aceralia (ArcelorMittal)
  - Tecnatom

- France
  - Ascometal

- Finland
  - Ovako-Imatra
  - Rautaruukki Oyj

- Sweden
  - Outokumpu
  - Sandvik
  - Uddeholm

- Japan
  - Daido
  - Sumitomo
  - Sanyo

- United Kingdom

- Netherlands
1. Gerdau Group

2. Special Steels Business Unit

3. India Business Unit
Gerdau Steel India Ltd.

General Info

- Company Name: Gerdau Steel India Ltd.
- Mill Location: Tadipatri
- Office Location: Bangalore
- Product Portfolio: SBQ

Steel Mill

Tadipatri
- Crude Steel Capacity: 300,000 t
- Rolled Steel Capacity: 300,000 t
Gerda Steel India Ltd.

Project History

- SJK Steel acquired to form a JV between Kalyani Group and Gerdau Group
- Project on hold due to global financial crisis
- Project CAPEX approved for 300,000 tons

On Going Projects
- Rolling Mill
- Sinter Plant
- PowerPlant
- SMS upgrades
- Coke Oven
- Township

Current Status

2012

- Sinter Plant
- Power Plant
- Blast Furnace Improvements
- SMS Upgrades
- Modification of Billet Caster (EMS)
- Modification of Billet Caster (Closed Casting)
- Dedusting System for Cast House
- Rolling Mill
- Inspection Line 2

2013

- Rolling Mill start-up
- Gerda takes over Kalyanis stake
**Project Scope**

**Iron Making**
- CPP 1: 15 MW
- CPP 2: 6 MW
- Coke Oven
- Sinter 1: 33 m²
- PCI
- PCM

**Melt Shop**
- BF 1: 350 m³
- BOF 1: 35 t
- LF 1: 35 t
- VD 1: 35 t

**Rolling Mill**
- CCM 1: 3 x 130 mm, 6m radius

**SBQ:** 300,000 t/y

- Ø 16-65 mm

**Inspection**

**Configuration:** 300,000 tons liquid metal

**Existing**

**Approved Projects**
Phase II Expansion

Configuration: 1.2 million tons liquid steel

Iron Making
- CPP 2
- CPP 3
- CPP 4
- PCI 1
- PCI 2
- BF 1
- BF 2
- Sinter 1
- Sinter 2
- CPP 1
- CPP 5
- Pellet Plant
- 400 kt/y
- Beneficiation
- Mines

Coke Oven
- 4 Battery
- 4 Battery
- 4 Battery

Melt Shop
- BOF 1
- 35 t
- BOF 2
- 35 t
- BOF 3
- 35 t
- BOF 4
- 75 t
- LF 1
- 35 t
- LF 2
- 35 t
- LF 3
- 75 t
- LF 4
- 75 t
- VD 1
- 35 t
- VD 2
- 35 t
- VD 3
- 35 t
- VD 4
- 75 t

Rolling Mill
- RM 1
- SBQ: Ø 16-70 mm
- 300 kt/y
- Inspection
- RM 2
- SBQ: Ø 50-140 mm
- 500 kt/y
- Inspection

Customers
Special Steel: Long-Term Vision

To be the global supplier of choice in special steel business

- Quality of products and services
  - Proximity to customers
  - Product development
  - World-Class operation
  - Management technology

Special Steel Business Operation is core in Gerdau’s strategy
Is proud to announce ‘LK Group’ of companies as their distributors for marketing their products.