SFSA 2013 Forecast
<table>
<thead>
<tr>
<th>Market Segment</th>
<th>Estimated 2011 (tons)</th>
<th>Projected 2012 (tons)</th>
<th>2012 Change (%)</th>
<th>Forecast 2013 (tons)</th>
<th>2013 Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad</td>
<td>333,760</td>
<td>417,200</td>
<td>25</td>
<td>417,200</td>
<td>0</td>
</tr>
<tr>
<td>Mining</td>
<td>191,100</td>
<td>229,320</td>
<td>20</td>
<td>239,000</td>
<td>7</td>
</tr>
<tr>
<td>Construction</td>
<td>78,850</td>
<td>78,850</td>
<td>0</td>
<td>82,793</td>
<td>5</td>
</tr>
<tr>
<td>Trucks</td>
<td>17,210</td>
<td>17,210</td>
<td>0</td>
<td>17,210</td>
<td>0</td>
</tr>
<tr>
<td>Valves &amp; Pumps</td>
<td>44,850</td>
<td>49,335</td>
<td>10</td>
<td>54,269</td>
<td>10</td>
</tr>
<tr>
<td>Oil Field</td>
<td>18,000</td>
<td>21,600</td>
<td>20</td>
<td>23,760</td>
<td>10</td>
</tr>
<tr>
<td>Military</td>
<td>15,000</td>
<td>18,000</td>
<td>20</td>
<td>18,900</td>
<td>5</td>
</tr>
<tr>
<td>Other Markets</td>
<td>80,773</td>
<td>92,889</td>
<td>15</td>
<td>106,822</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>779,543</strong></td>
<td><strong>924,404</strong></td>
<td><strong>19</strong></td>
<td><strong>959,953</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>
Smoothed U.S. Recession Probabilities (RECPROUSM156N)

Source: Marcelle Chauvet and Jeremy Piger

Shaded areas indicate US recessions.
2012 research.stlouisfed.org
PMI index

ISM Manufacturing: PMI Composite Index (NAPM)
Source: Institute for Supply Management

Shaded areas indicate US recessions.
2012 research.stlouisfed.org
Business Impact Factors
2013

• European recession will reduce global demand for castings and put downward pressure on commodity prices
• China is experiencing a sharp slowdown in domestic demand and international demand.
• US economic uncertainty and slow growth has led to a slowdown in steel casting demand for the end of 2012 that is likely to persist into the first part of 2013.
• High but falling commodity prices support lower but not falling demand.
Casting Backlog

weeks

Steel Backlog
Stainless Backlog

Sep-10 Nov-10 Jan-11 Mar-11 May-11 Jul-11 Sep-11 Nov-11 Jan-12 Mar-12 May-12 Jul-12
Nondefense Capital Goods
New orders-Air
Price Index
Value of the Dollar

Trade Weighted U.S. Dollar Index: Major Currencies (DTWEXM)
Source: Board of Governors of the Federal Reserve System

Shaded areas indicate US recessions.
2012 research.stlouisfed.org
Railroad Forecast

- Railroad industry
  - 2011 estimated 385,000 tons
  - 2012 projected 485,000 tons
  - 2013 forecast 445,000 tons

- Railcar deliveries
  - 2011 actual 36,850 units
  - 2012 projected 57,000 units
  - 2013 forecast 49,000 units

- Tank car builds at high levels
- Auto racks converting from bi to tri level
- Coal and grain are down
Mining Forecast

• Mining castings
  – 2011 estimated 191,000 tons
  – 2012 projected 239,000 tons
  – 2013 forecast 191,000 tons

• Mine production still increasing but at slowing rate

• Commodity prices have fallen but are still high enough to justify operations and investment
Construction Forecast

• Construction equipment
  – 2011 estimated 79,000 tons
  – 2012 projected 79,000 tons
  – 2013 forecast 79,000 tons

• Some suggestion of improving housing construction

• Higher unemployment and continued uncertainty limiting investment
Truck Forecast

- **Trucks Class 8**
  - 2011 estimated: 17,000 tons
  - 2012 projected: 17,700 tons
  - 2013 forecast: 16,000 tons

- **Truck sales in US**
  - 2011 estimated: 171,000 units
  - 2012 projected: 180,000 units
  - 2013 forecast: 162,000 units
U.S. Class 8 Net Truck Orders

Source: ACT Research

Net Orders

Jan-11  Mar-11  May-11  Jul-11  Sep-11  Nov-11  Jan-12  Mar-12  May-12  Jul-12

YoY % Change

Class 8 Net Orders  YoY % Chg

0  8,000  12,000  16,000  20,000  24,000  28,000  32,000

-75%  -50%  -25%  0%  25%  50%  75%  100%
Pump and Valve Forecast

• Pump and Valve industry
  – 2011 estimated 45,000 tons
  – 2012 projected 49,500 tons
  – 2013 forecast 54,500 tons

• Increasing requirements for oil and higher pressure applications increasing demand

• Some users specifying North American suppliers for castings

• May soften below 10% forecast based on election and public policies
Oil Field Forecast

- Oil field equipment
  - 2011 estimated: 18,000 tons
  - 2012 projected: 22,000 tons
  - 2013 forecast: 22,000 tons

- At $80 a barrel investment drops, at $90 it continues, at $100 it expands
Price of Oil

Spot Oil Price: West Texas Intermediate (OILPRICE)
Source: Dow Jones & Company

Shaded areas indicate US recessions.
2012 research.stlouisfed.org
Military Forecast

- Military equipment
  - 2011 estimated 15,000 tons
  - 2012 projected 18,000 tons
  - 2013 forecast 19,000 tons
Other Market Forecast

• Other markets
  – 2011 estimated 81,000 tons
  – 2012 projected 92,000 tons
  – 2013 forecast 92,000 tons
## Forecast Summary

<table>
<thead>
<tr>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000,000 tons</td>
<td>920,000 tons</td>
</tr>
</tbody>
</table>

Projected 2012  
Forecast 2013

2012 likely to be slower for the balance of the year.  
2013 likely to be slower in first half of year and increase at end of year.