Indian Foundry Industry

VIKAS GARG
President Designate

The Institute Of Indian Foundrymen
vp@indianfoundry.org

&
Managing Director - Forace Polymers
vgarg@foracepolymers.in
IIF & Centers of Excellence (CoE)

- Head Office at Kolkata (West Bengal)
- +3000 Members
- 4 Regional Offices, 27 Chapters & 3 CoE

Centre Of Education & Training
(Short term training programs, modular courses & exams)

Foundry Informatics Centre, Delhi
(Maintain & update stats, database & coordinate with various Govt. & other agencies)

National Centre of Technical Services Pune
(Provide Technical solutions & publications)
Objectives of IIF

Promote Industry Competitiveness:

- Dissemination of Latest Technologies
- Promote Efficient Energy Management
- Training, Education & Skill Development
- Promote Business Development
- Organize Conferences, Exhibitions
- Technical Publications
- Maintain & Update Database
- Policy Advocacy
Major Foundry Clusters
## Indian Foundry Industry at a Glance

<table>
<thead>
<tr>
<th>Approx. Units</th>
<th>4600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>9.5 Million MT PA</td>
</tr>
<tr>
<td>Employment</td>
<td>500,000 Directly</td>
</tr>
<tr>
<td></td>
<td>150,0000 indirect</td>
</tr>
<tr>
<td>Major Clusters</td>
<td>19</td>
</tr>
<tr>
<td>Productivity Per unit</td>
<td>1950 MT/PA</td>
</tr>
<tr>
<td>Avg. Productivity/ Man/ PA</td>
<td>20</td>
</tr>
<tr>
<td>Max. Productivity/ Man/ PA</td>
<td>90</td>
</tr>
</tbody>
</table>
Sector wise Consumption of Castings

- Auto 32%
- Agricultural M/c 8%
- Earthmoving 2%
- Pumps & compressors 5%
- Electrical Equip 3%
- Industrial M/c 7%
- Machine Tools 2%
- Power 4%
- Rails & Fittings 8%
- Sanitary 8%
- Diesel Engines 3%
- Valves 4%
- Others 10%
Production of Castings in Million MT (2012-13)-INDIA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grey C.I.</td>
<td>2.47</td>
<td>2.84</td>
<td>3.18</td>
<td>4.116</td>
<td>4.87</td>
<td>5.332</td>
<td>4.532</td>
<td>5.05</td>
<td>6.18</td>
<td>6.798</td>
<td>6.254</td>
</tr>
<tr>
<td>SG Iron</td>
<td>0.316</td>
<td>0.363</td>
<td>0.442</td>
<td>0.618</td>
<td>0.762</td>
<td>0.802</td>
<td>0.785</td>
<td>0.802</td>
<td>0.984</td>
<td>1.09</td>
<td>0.981</td>
</tr>
<tr>
<td>Malleable</td>
<td>0.039</td>
<td>0.039</td>
<td>0.04</td>
<td>0</td>
<td>0.0623</td>
<td>0.0651</td>
<td>0.0605</td>
<td>0.0602</td>
<td>0.0692</td>
<td>0.066</td>
<td>0.0604</td>
</tr>
<tr>
<td>Steel</td>
<td>0.388</td>
<td>0.465</td>
<td>0.581</td>
<td>0.805</td>
<td>0.914</td>
<td>0.964</td>
<td>0.916</td>
<td>0.88</td>
<td>1.07</td>
<td>1.14</td>
<td>1.158</td>
</tr>
<tr>
<td>non ferrous</td>
<td>0.296</td>
<td>0.331</td>
<td>0.38</td>
<td>0.516</td>
<td>0.571</td>
<td>0.608</td>
<td>0.547</td>
<td>0.653</td>
<td>0.75</td>
<td>0.9</td>
<td>0.891</td>
</tr>
</tbody>
</table>
Exports of castings in USD Mn.
Country wise Casting Production - Census 2012-13

Source: Modern Casting, USA

- China: 42
- USA: 13
- Germany: 7
- Japan: 6
- Brazil: 3
- Korea: 2
- Russia: 2
- Italy: 1
- France: 1

Source: The Institute of Indian Foundrymen
Production Trends of Castings (Top 1-5)
Figs in Million Tons

- China
- India
- USA
- Japan
- Russia
Product Mix

Product Mix of cast Metal-India

- Grey Iron: 68%
- Steel: 12%
- SG Iron: 10%
- Non Ferrous: 9%
- Malleable: 1%
Machine Tools

- 2011-12: 4299
- 2012-13: 3885
- 2013-14 (Apr-Sep): 1800
Trends in Auto Sector
Forecast - Commercial Vehicles (000)
Forecast-Construction Vehicles (000)
Forecasts - Tractors (000)

The Institute of Indian Foundrymen
## New Plans / Recent Investments

<table>
<thead>
<tr>
<th>Company</th>
<th>INR (in Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maruti Suzuki</td>
<td>180000 (in 3 phases in)</td>
</tr>
<tr>
<td>Ashok Leyland</td>
<td>10000</td>
</tr>
<tr>
<td>Nissan Jt Venturewith AL</td>
<td>23000</td>
</tr>
<tr>
<td>Asia Motor Works</td>
<td>5000</td>
</tr>
<tr>
<td>Hyundai</td>
<td>4000</td>
</tr>
<tr>
<td>Daimler Trucks</td>
<td>44000</td>
</tr>
<tr>
<td>Eicher Volvo</td>
<td>5000</td>
</tr>
<tr>
<td>Force Motors</td>
<td>8000</td>
</tr>
<tr>
<td>Mahindra</td>
<td>13500</td>
</tr>
<tr>
<td>Tata Motors</td>
<td>120000</td>
</tr>
<tr>
<td>Volvo Buses</td>
<td>5000</td>
</tr>
</tbody>
</table>
New Foundry Expansions

- Steel Cast
- Indian Smelting
- Kastrel
- PSG Coimbatore
- Bagree Alloys
- Tata Motors
- Hinduja
- Amtek
- DGP Hinoday (M&M)
- Srinivas engg
- Oliver Rajpura
- Menon & Menon
- KFIL Hospet
- Jindal Fitting
- DCM Engg
- Sharp Chucks
- RPS Vikas
- Bhagwati Foundries
- Flowmetallic
- Nelcast
- Brakes India
- Larson & Tubro
- Ace Designers
- Ghatge Patil Industries
- Amtek Group
- OCL Palwal
- Stride Palwal
- Electrosteel Bokaro
Major Foundry Clusters

Following major foundry Clusters are formed under IIUS
(Industrial Infrastructure up-gradation scheme of Ministry of Commerce & Industry)

- Belgaum
- Coimbatore
- Kolhapur
- Howrah
Common Facilities in clusters

- Foundry Simulation software
- Promote Green & Clean Environment
- Improvement in Basic infrastructure
- Common interactive portal for members
- ERP software package for members
- Common Training facilities
- Common Testing labs
- Vendor/supplier development programme
- Collective procurement where possible
Common Facilities in clusters

- Modern Convention Hall
- Optical Emission Spectrometer
- 3D CMM Machine
- Sand Reclamation
- 3D Modeling & ERP/ CAD CAM solutions
- Modern Tool room
- Rapid Product Development
Benefits

- Access to common Modern Design, Production & Testing facilities
- Improved productivity
- Improved skills
- Better infrastructure
- Collective bargaining for procurement & other services
- Greener environment
- Improved profitability & overall improved competitiveness
New Initiatives

- Lean Manufacturing Program undertaken with National Productivity Council
- UNIDO- GEF Program for Energy Efficiency
- UNIDO ICAMT Project for improved productivity in cluster

UNIDO United Nations Industrial Development organization
GEF Global Environment Facility
ICAMT International Centre for the Advancement of Manufacturing Technology
IIF Initiatives

- IIF is promoting the energy conservation in foundries by conducting awareness program/ detailed energy audits supported under UNDP/ GEF SGP

- Signed MoU with Central Board of Secondary Education for introducing foundry Technology in schools as an optional vocational subject

UNDP  United Nation Development Program
GEF  Global Environment Facility
SGP  Small Grants Program
Future Plans

- To Promote recycling of foundry sand in clusters & to take up with Govt. to support this to protect environment & conservation of natural resources.
- To promote collaborative approach in clusters for improved competitiveness.
The business sentiment has considerably improved in the last 3 months.

The new Govt. has a strong mandate for economic development.

Increased focus of Govt. on investments by allowing higher FDI limits & incentives for investments in plant & machinery for manufacturing for limited period.

Increased focus on manufacturing, skilling.

Fast tracking of projects & removal of procedural bottlenecks & emphasis on e governance.

Promoting “Make in India” by facilitating ease of doing business.

Foundry sector likely to grow by 10-12% in 2014-15.
Conclusion

India Foundries are increasingly focusing on:

- Lean Manufacturing for improved productivity
- Value addition & cost competitiveness
- Energy efficiency & conservation of natural resources
- Indian foundries are capable of producing value added engineered castings (From a few grams to over 100 Tons/ piece) for various applications conforming to international standards at internationally competitive prices
Welcome to 63rd Indian Foundry Congress and International Foundry Exhibition IFEX 2015

**Dates**: Feb 27-March 1’2015

**Venue**: World class India Expo Center
Greater Noida, Delhi NCR, India

**Highlights**:
- Technical sessions with focus on practices
- International Foundry Exhibition Spread over 10000 Sq M. Over 200 Exhibitors from India & Overseas & Cast India Expo
- Cast Source Meet (Interaction between Buyers/Sellers of Castings)
- Post Congress works visits
- Post Congress visits to places of Tourist attractions
- Attractive evening cultural programmes
- Attractive Programmes for Accompanying spouses

For More Details, Please visit: [www.ifcinfia.net](http://www.ifcinfia.net)
Thank You