Indo Spark Construction Services, Kolhapur, Maharashtra, headed by Sandeep Ingale, organised the fastest rebar fixing event in which six workers successfully fixed 1,021 TMT bars of 8 x 100 mm on a concrete cube in 38 min 52 sec from 7.32 pm to 8.11 pm on May 28, 2015. The team of workers included Balaso Tukaram Bidkar, Deepak Dewba Gawkar, Mukesh Madyappa Sutar, Ramesh Basappa Reddi, Parshuram Ningappa Biradar and Sardar Ganpati Desai.

Vijaya Ghose
Editor, Limca Book of Records

Limca Book of Records
Awards Winner 2015

Concrete Cutting Expert
Indo Spark Construction Services, Kolhapur, Maharashtra, headed by Sandeep Ingale, organised the fastest rebar fixing event in which six workers successfully fixed 1,021 TMT bars of 8 X 100 mm on a concrete cube in 38min 52 sec from 7.32pm to 8.11pm on May 28, 2015.

The Company

**INDO-SPARK** Group is 41+ years young Enterprise, having expertise and operations in the following

**Construction services** – for any challenge in cutting and fixing of civil structures in concrete, brick masonry, rock and even under water. We have been providing solutions in cutting & fixing since last 25 years.

With over 25+ years experience in the construction industries Indo Spark Construction Services specialise in Concrete drilling and cutting expertise in diamond Drilling, sawing and controlled demolition work.

With their Head office based at Kolhapur [Maharashtra India.] and Strategically based branches in Islampur, Pune & Mumbai Indo Spark Construction Services has built its enviable reputation with its highly trained team, qualified operators on skillful use of the Very latest equipment carrying out thousands of Contracts promptly and precisely throughout the country.

In Short Indo Spark Construction Services provide a truly professional services in the field of contracting nationwide.

**Key Services**

- Anchor Bolt Fixing work.
- Bar Fixing
- Concrete Demolition
- Concrete Splitting
- Diamond Drilling/Core Cutting
- Diamond Floor Sawing
- Diamond Wall Sawing
- Diamond Wire Sawing
- Hydraulic Bursting
- Hydraulic Concrete Crusher

[www.indospark.com](http://www.indospark.com)
Rearing Work

Indo spark construction services is also expertise to undertake Dowel Bar Fixing Work for our clients. We install the dowel bars for the extension purposes, by using imported hi-tech chemicals without breaking the existing beam & column. Moreover, we can make dowel bars in bricks masonry as well. We can also Provide a services in dry an also in wet surface.

We Indo spark construction services are engaged in offering Anchor bolt fixing services to the clients These Bolt fixing Services require minutes focusing and the application of rights Tools our bolt are fixed directly on the top corner pieces and for miner lateral adjustment threaded rods are hung from the ceiling as well as adjusted to the brackets those are pro-vided along side. We are looking for the queries from all over Branches from India.

Key Features
- Dowel Bar Fixing, [8mm to 32mm]
- Foundation Bolt Fixing
- MS Plate Bolt Fixing
- Tower Foundation Bolt Fixing
- All types of steel bar & Anchor Fixing
- Wood & Aluminum frame Fixing

Concrete Breaking / Demolition Work

We at Indo Spark Constrection Services offer Concrete Breaking Services / Demolition Services of various structures, Using specialized machines and equipment. We carry out the Demolitions in proper Manner keeping in mind the inclination Angle, surface Area of the structure being demolished without Causing any damage loss to any property nearby. Rendering Services to commercial or residential structures, our Experts make safe use of the demolition equipment Such as electrical hammer machine, ensuring the Almost satisfaction to our client’s. These services are rendered for various types of slab, beam, column, RCC Works, Brock works, walls, COBA and terrace waterproofing.

Key Features
- Industrial structure Demolition
- RCC structure breaking work
- Commercial complex’s demolition
- For example-Column, Beam, Slab, Chajja,
Diamond Drilling

Diamond Drilling is the most versatile and efficient method of forming holes and opening in a wide range of hard material from heavy reinforced concrete and natural stone and bricks.

At Indo Spark Construction Services we are proud of speed at which we can undertake and complete even the most complex solve and drilling problem.

**Key Features**

- Dust and vibration free
- Flexible power sources
- Light weight Drilling
- High Performance Automated Regs
- Hole Size from 8mm To 600mm
- New slurry containment and
  Re-cycling system allows wet drilling in furnished area
- Low noise output
- The most precise method of forming Service penetration
- Fully Trained labor & Operators
- Fully equipped mobile workforce covering the job Area
- No dust due to dry cutting
- Clean & Safe
- Dry drilling when required
Utilizing and pioneering the latest technology, Indo Spark are able to drill holes in a number of applications from new build housing contracts to complex civil engineering and nuclear decommissioning projects.

The versatile range of equipment can be hand held electric rig mounted, self contained trailer or airport rig and is light weight and adaptable allowing even the most demanding projects to be undertake with speed and precision.

Where appropriate Indo Spark can utilize stitch drilling which is a technic which are free from spalling and require little or no reinstatement.

This procedure can be used across the four plains of vertical, horizontal, angled and inverted. No matter you require hole is how big or how long, Indo Spark can drill through it.

**For Example**

Core cutting work capacity from 12mm to 1000mm

Core cutting work in Rcc Slabs for depths upto 3 meter

www.indospark.com
Diamond Floor Sawing

When you need to slice through heavily reinforced concrete or asphalt our range of high output precision equipments gives clean edges and aids in the cutting out of unwanted section aside suited to horizontal surface such as RCC slabs, concrete road, runways, pavements. We Can cut up to a depth of 330mm and achieve the result in a very short timescale

Key Features

- High powered 3phase motor for floor sawing externally
- Electrically powered equipment for internal use
- Precision cutting of reinforced concrete and asphalt
- Split saws featuring component interchange
- Ability for in accessible areas
- Full range of case studies available demolition cutting for refurbishment
- Removal of defective concrete
- Loop cutting
- Precision compact self propelled saws
- Almost zero vibration
- Dust free
- Fixed price contracts
- Blade types to suit every application
- Fully trained labor & operator team

www.indospark.com
Rcc slab cutting work

Removing cutouts by the help chainpully

With Indo Spark Construction Services floor sawing expertise we can achieve the cutting of internal floor slabs up to 330mm thick quickly and quietly with no fumes in location such as Supermarket, Factories and Hospital, Where speed of operation and appreciation of the sensitive nature of the location is important. Expansion joints can be cut quickly and accurately with our self propelled joint cutting saws.

For Example
Diamond Wall Sawing

Using the very latest in high cycle electric and hydraulic wall saw technology we can precision cut opening to form doors and windows and remove entire sections of structures in material such as heavily reinforced concrete, brick work and stone in buildings where access for conventional equipment is precluded and cut to depths of 730mm in the most demanding situations.

Key Features

* Precision cutting
* Vibration Free
* Cut up to 600mm depth
* Precise remedial works
* Remote controlled operation for increased safety
* Angle Cutting
* Stair Cutting
* Flush cutting
* Speed & Versatility
* Fume Free
* Full range of case studies available
* Fully trained labors & operators
* Fully equipped mobile work force covering all over India.

www.indospark.com
RCC foundation cutting work.

RCC Heavy Bridge cutting work.

RCC Wall Cutting work

RCC Wall After Cutting
Diamond Wire Sawing

Diamond wire sawing using high cycle electric or hydraulic equipments is the fastest and most versatile means of cutting heavily reinforced concrete the wire saw easily handles the thickness sections of all construction material with cutting rates in excess of 1m³/hour achievable and the ability to cut circular opening up to 2500mm diameter leaving clean, straight and smooth cut surface with no damage to the remaining structure.

When faced with the problem of removing large sections of heavily reinforced concrete in complex situation here access large is restricted such as a bridge deck of the removal of columns and beams where depth and speed of cut are critical, were sawing provides the solutions and seen extensively used by Indo Spark Construction Services on some of the India’s largest project.

Key Features

- Non-Percussive
- Smooth cut face
- Unlimited cutting depth
- Horizontal, Vertical and angled cutting of circular opening upto 2500mm diametre
- Quiet and Fumeless
- Fast and flexible
- Plunge cutting facility allowing blind arid rebated opening to be formed
- Safe remote controlled operation
- Full range of case studies available
- Fully Trained labor & operators
- Fully equipped mobile workforce covering the jobs

www.indospark.com
Under Water Wire Sawing Work

Proper Platform

Proper Stand Fixing

Diamond wire seating on cut out Location

Proper Wire Tying

Cutting Started

Cutting going on

Lifting cutout with crane & Shifting to proper location

Pile after cutting

www.indospark.com

Concrete Cutting Expert
Hydraulic Bursting

Hydraulic Bursting is one of the safest and most efficient methods of mass concrete, brick work or natural stone.

Hydraulic Bursting are placed in pre-drilled holes and expanded to induce controlled cracking of the material, thus reducing it to manageable sections for removal.

What's more the equipment can be used in confined spaces without risk. Indeed Indo Spark Construction Services have used this technology to remove heavily reinforced concrete up to 5mm thick in structure such as dam, bridge and nuclear power stations where precise controlled system of removal was required.

Key Features

- Non percussive
- Bursting power ratios of over 2000 bars
- Low noise
- Easily accesses sensitive and inaccessible areas

- Full range of case studies available
- Full trained labor operators
- Fully equipped mobile work force covering the jobs

www.indospark.com
Hydraulic Splitter

Hydraulic Splitter is one of the safest and most efficient methods of mass concrete, brick work or natural stone.

Hydraulic Splitter are placed in pre-drilled holes and expanded to induce controlled Cracking of the material, thus reducing it to manageable sections for removal.

What's more the equipment can be used in confined spaces without risk. Indeed Indo Spark Construction Services have used this technology to remove heavily reinforced concrete structure such as Dam, Bridge and Nuclear power stations where precise controlled system of removal was required.

Key Features

- Non percussive
- Easily crack the concrete, natural stone
- Low noise
- Easily accesses sensitive and inaccessible areas.
- Full range of case studies available
- Full trained labor operators
- Fully equipped mobile work force covering the jobs

www.indospark.com
Hand Sawing

Indo Spark Construction Services also offer a full range of specialist sawing alternatives which can use to cut Slab, Brick wall Small structure beam. Hand saw allow square or rectangular opening to formed with no over cutting the corners to a depth of mm across a wide range of material

Key Features

* No owner cutting on corners (i.e. square edges)
* Cutting depth up to 400mm
* Full trained labor & operators
* Fully equipped mobile work force covering the job

For Example
**PULL OUT TEST**

- Pull out test establishes the strength or the resistance of an anchor to withstand a tensile (Pull out) Load.
- Pull out test is carried out for both Mechanical and Chemical anchors and also for rebars.
- Indo Spark has capacity to undertake pull out tests from Dia 8mm to Dia 40mm bar and stud.
- The test unit could be either KN or TON. We have equipment to do a pull out test of up to 75 ton load on site.
- Pull out test is carried out using an hydraulic equipment with provision to hold and exert a tensile load to try and extract the rebar/stud from its anchored position.
- Pull out test is either done to establish the performance of anchor for a recommended load or to decide on ultimate load value at which the substrate or the bonding of the anchor starts to fail.
- Thus a pull out test establishes the quality of anchoring and suitability of the base material for a pre determined load.
- Indo Spark uses calibrated gauges and equipment to carry out pull out tests.

**PULL OUT TESTING PROCEDURE**

- Test is conducted on customer site, in the presence of customer/consultant.
- ISCS have personnel trained in doing Pull out tests and only trained persons are sent for pull out test.
- No of anchors to be tested and the load at which pull out test is to be carried out, is as decided by the customer.
- On completion, a test report with result Data filled in and co-signed both by the customer and the ISCS person carrying out the test is prepared and handed over.

**ISCS ADVANTAGE**

- Trained Personnel
- Calibrated equipment
- Tests on site at customer Location
- Establishes the strength of anchor at a particular load
- Establishes the structural strength of Base material or the anchoring system
Design App: Link: http://www.indospark.co.in/#/app/home

INDO SPARK CONSTRUCTION SERVICES

This app helps you select ICFS chemical anchor, capture and calculate your concrete services provided by ICFS.

**Features**

**Anchor Design:** Selection of ICFS chemical anchor, volume and quantity of ICFS chemical cartridges required. You can select the desired configuration, loads and concrete dimensions for fixing the anchor(s). Based on these inputs, the app suggests size of the ICFS chemical anchor, required depth of hole in concrete, volume of ICFS chemical required and quantity of ICFS chemical anchor required and quantity of ICFS chemical anchor suggested are based on design load, spacing and edge distance factors.

**Design Resistance/Chemical Consumption:** Selection of ICFS chemical anchors in special cases involving non-load bearing layers. You can further refine selection of ICFS chemical anchors suggested in Anchor Design above if Non-load bearing layers are involved while fixing.

**Concrete Cutting:** ICFS Concrete cutting area/Volume Calculator. You can select types of layers and their dimensions to calculate concrete cutting area and volume.

Information from all above can be exported in PDF format. Use this to communicate your requirements to ICFS. ICFS will get back to you with a quote as soon as possible.

---

ICFS ANCHOR DESIGN

<table>
<thead>
<tr>
<th>Resultant Applied Loads</th>
<th>Tensile Load</th>
<th>21.09 kN (4.74 ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shear Load</td>
<td>14.14 kN (3.16 ton)</td>
</tr>
</tbody>
</table>

Anchor Design Common Parameters:

- **Product:** Vinylester Styrene free resin (CM 306: YESF)
- **Rebar Stud:** 5.8 Grade Studging
- **Rebar Stud Diameter:** 12 mm
- **Hole Diameter:** 14 mm
- **Depth:** 120 mm
- **Design Resistance:** 29.2 kN (6.80 ton)
- **Recommended Load:** 26.9 kN (6.12 ton)
- **Per Hole Chemical Volume:** 12.25 ml
- **Number of holes in 300 ml ICFS Chemical:** 26.13
- **Chemical Cartridges required for this design (1 hole):** 1

Anchor-Specific Parameters:

- **Anchor:** 1
- **Spacing Factor:** 1.00
- **Edge Distance Tensile Factor:** 0.90
- **Edge Distance Shear Factor:** 0.72
- **Design Resistance (Tensile):** 29.36 kN (6.80 ton)
- **Design Resistance (Shear):** 21.02 kN (4.74 ton)

---

ICFS ANCHOR LENGTH/DESIGN RESISTANCE AND CONSUMPTION

<table>
<thead>
<tr>
<th>Anchor Parameters</th>
<th>Product</th>
<th>Pure epoxy (CM 306: YESF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rebar Stud</td>
<td>5.8 Grade Studging</td>
</tr>
<tr>
<td></td>
<td>Holes</td>
<td>2 mm</td>
</tr>
<tr>
<td></td>
<td>Hole Diameter</td>
<td>12 mm</td>
</tr>
<tr>
<td></td>
<td>Maximum Anchor Length</td>
<td>120 mm</td>
</tr>
<tr>
<td></td>
<td>Anchor Nut Diameter and Width</td>
<td>17 mm</td>
</tr>
<tr>
<td></td>
<td>Anchor Nut Length</td>
<td>10 mm</td>
</tr>
<tr>
<td></td>
<td>Anchor Nut Width</td>
<td>16 mm</td>
</tr>
<tr>
<td></td>
<td>Anchor Nut Height</td>
<td>12 mm</td>
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<tr>
<td></td>
<td>Anchor Nut Depth</td>
<td>80 mm</td>
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<tr>
<td></td>
<td>Design Resistance</td>
<td>18.0 kN (4.04 ton)</td>
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<tr>
<td></td>
<td>Recommended Load</td>
<td>15.5 kN (3.53 ton)</td>
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<tr>
<td></td>
<td>Per Hole Volume</td>
<td>6.91 ml</td>
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<tr>
<td></td>
<td>Number of holes in 400 ml ICFS Cartridge</td>
<td>550</td>
</tr>
</tbody>
</table>

CONCRETE SERVICES DATA SHEET

| Aggregate | 0.89 m³ |
| Volume   | 0.27 m³ |
| Weight   | 975 kg  |

ICFS Beam Cut

| Area | 0.69 m² |
| Volume | 0.27 m³ |
| Weight | 675 kg |

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INDO SPARK Footprints

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We are proud to announce ourselves as all India distributors for Construction Fastening Systems (UK)

* Power Tools * Anchor Fasteners * PU Foam

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