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CM350P

RESIN

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350 m

ENVES

**CM350VESI** 

50m

A brand of Indo Spark Group Since 1978

360SH

CM360SH

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# **Anchor fasteners**

AVANAVAY

EMBLY

ICFS

**1K** 

**B**1

PR

GUN AND Foam

CLEANER

Suitable for fastening in concrete

WWWWWWWWW

1K

RATED FOAM B1

High Perfor One-Comp Expanding Fire Rated PU Foam

**K-ASSEMBLY FOAM** 

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ICF 5 A

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# Indo Construction Fastening Systems

Indo Construction Fastening Systems (ICFS) is a 45 years company, having expertise and operations in the following three verticals:

- ICFS Anchor Fastening Systems
- Construction Services
- ICFS Anchor Designer

We have chemical and mechanical anchors usable for installing furniture, fixtures & structures at site. Based on the design load parameters, we even suggest correct type of chemical, diameter of anchor bolts, embedment depth and chemical consumption per hole.



# Our story

«From an automotive workshop employing just 2 in 1978 to what we are today-a well-known, successful, respectable, leading business house in India.

It was indeed a long journey. A journey full of challenges, hardships, bottlenecks. But we came out intact and grew many folds - vertical and horizontal.

The best assets of ours, I think are our reputation for honesty, fair dealing, timely delivery and quality.

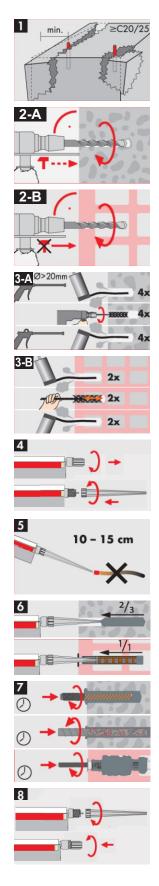
As I look back there are two main factors which made Indo Spark blossom. First is the wisdom and honesty of our chairperson Mr. Tilakchand Ingale along with his trust in the employees and second is the wholehearted, sincere, hard work put up by our employees – young and old including technicians and workmen.

One thing is certain

We have never stopped growing. Sandeep Ingale, CEO Indo Spark Group

# **ICFS Chemical Mortar**

## Product Application guide



1 Reco M

**Base Material** 

### 2 - A, 2 - B

Drilling Drill corect hole size and depth on concrete / brick / stone / mansory.

### 3 - A, 3 - B

Hole cleaning Blow out dust and clean the hole with brush, then blow out remaining dust and repeat.

### 4

Mixing Nozzle Remove the cap and put on the mixing <sup>nozzle</sup>.

### 5

#### Mixing Waste

Extrude some resin to waste until an even-colored mixture is extruded, The cartridge is now ready for use.

### 6

**Injecting** Inject mixed adhesives from the bottom of the hole.

### 7

#### Inserting, Hardening and Curing

Insert and rotate stud / bolt / anchor / rebar / threaded rods into the hole. For the curing and gelling time, please refer to our Technical Data Sheet. Do not touch until fully cured.

### 8

After removing the Mixing Nozzle, Refix the cap for reuse of chemical.

## Chemical Mortar Product Description Chemical mortar - CM350P



#### Description

Polyester CM350P is a high performance general purpose two-component chemical anchoring system that has been formulated for anchoring in a wide variety of building material. To match your installation environment. Furthermore, the resin is available in grey color. All features combined make Polyester anchoring resin a versatile and cost effective anchoring system.

Polyester CM350P is available in (side-by-side) cartridges.

#### Features

- Suitable for medium loads for non-critical applications
- Fast working times for early loading in time sensitive applications.
- Use in outdoor environments and fixing holes.
- Extremely versatile in masonry, hollow, aerated concrete.
- Crack and gap filling repairs in concrete vertical or horizontal.
- 10:1 resin available in variety of cartridges types

- Masonry Supports
- Machinery
- Canopies
- Handrails
- Ventilated Façades
- Bicycle Racks



## **Chemical Mortar Product Description** Chemical mortar - CM350VESF



#### **Description**

CM350VESF is a multi-purpose bonded anchoring system with improved performance. It is suitable for use in dry, wet and flooded holes. Formulated free of styrene, CM350VESF has a very low odour and is ideal for use in confined spaces and indoors.

CM350VESF bonded anchoring system is CE Marked and has an Option 7 European Technical Assessment for anchoring into uncracked concrete, an ETA for post installed rebar and stud connections as well as a masonry ETA for anchoring into hollow and solid masonry.

CM350VESF is available in version (side-by-side) cartridges 300ml chemical variant can also be offered in a single cylinder

#### **Features**

- Anchors may be placed close to free edges
- Ideal for overhead applications
- Suitable for dry, wet & flooded holes without loss of performance
- Reduced drilling diameters i.e. M20 only requires a 22mm hole & M24 requires only a 26mm hole making it an economical injection system
- Variable embedment depths
- Available in side by side cartridges (350 ml), and single piston foil pack cartridges (300 ml)
- Ratio of 10:1

#### Application

- **Canopies-Ventilated**
- Facades
- Railings
- **Bicycle Racks**
- **Balcony Fences**
- Hand Rails
- Machinery Installation

#### Approvals

- ETA according to EAD 330499-00-0601 (Option 7: Uncracked Concrete)
- ETA according to EAD 330076-00-0604 (Masonry)
- ETA according to EAD 330087-00-0601 (TR023: Rebar Connections)
- 100 years service life
- A+ French VOC (Emissions Class)
- LEED Tested













## **Chemical Mortar Product Description** Chemical mortar - CM360SH



#### Description

CM360SH is a top-performance 'New Generation Polymer' anchoring system with very low VOC content offering very high performance in both cracked & uncracked concrete, along with a very good performance under seismic conditions (C1 & C2). CM360SH together with its variations is one of the most versatile anchoring systems in our range.

CM360SH bonded anchoring system is CE Marked and has an Option 1 European Technical Assessment for anchoring into cracked and uncracked concrete, an ETA for post installed rebar connections as well as a masonry ETA for anchoring into hollow and solid masonry.

CM360SH is available in (Side-by-side) cartridges.

#### **Features**

- Suitable for use with close edge distance and small anchor spacings
- Suitable for dry, wet & flooded holes
- Reduced drilling diameters, 22mm for M20 and26mm for M30; results in significant material and labour sayings
- Variable embedment depths 8d to 20d

#### Application

- Structural applications in cracked and non-cracked concrete, applications in seismic zones (C1 & C2)
- Crash Barriers
- Structural Steel
- Facades
- Post-installed rebar connections
- Starter bar applications

#### Approval

- ETA Option 1 ETAG 001 for cracked concrete with studs and rebar TR029
- ETA Option 1 ETAG 001 for rebar TR023 : Approved for Seismic Loads C2
- F120 Fire Test report
- ICC-ES Approval ESR 3853
- BS6920 for use with potable water WRAS Approved 1309522
- ETA approved in flooded holes, wet and dry concrete
- Tested according to LEED 2009 EQ c4.1, SCAQMD rule 1168 (2005)



	ÉMISSIONS DA
cal Assessment	
/0239 7-00-0601 132	
anchoring or overlap	"Information sur le niveau



échelle de classe







## Chemical Mortar Product Description Chemical mortar - CM585PE-PRO



#### Description

Epoxy Injection Resin is a top-performance two-component 3:1 ratio Epoxy Injection Resin bonded anchoring system for use in cracked and uncracked concrete under normal as well as very demanding seismic conditions (seismic categories C1 & C2). Designed for starter bar and post installed rebar connection applications, Epoxy Injection Resin offers a very high load-bearing capacity. The system can be installed in percussive and diamond drilled dry, wet or flooded holes.

This 100% epoxy resin has been formulated with no Phenol, N-Methyl Pyrrolidone, Bisphenol A and Phtalates or VOCs. It exhibits minimal shrinkage, which makes it ideal for use with oversized holes, while extended gel time allows convenient use in deep holes, large diameters and high ambient temperatures.

Epoxy Injection Resin has been extensively tested at leading test facilities and has a broad range of approvals, including ETA option 1 with best C1 & C2 seismic, ETA According to TR023, LEED tested for VOC, WRAS (potable water) approval.

Pure Epoxy is available in 3:1 ratio 585ml S-CN (side-by-side) cartridges.

#### Features

- Installations in dry, wet and flooded holes even in cracked concrete without reduction in the performance. Gel and cure times remain unchanged in damp or flooded holes
- Extremely high load capacity
- Remarkable seismic resistance
- Overhead applications possible
- Fixings close to free edges, stress free anchoring system
- Pure Epoxy is available in pink/red or grey mixed colour
- Available in side-by-side cartridges (585ml)
- Mixing ratio of 3:1
- Extended gel/open time

#### **Approvals**

- ETA according to EAD 33049-00-0601 (Option 1: Cracked & Uncracked Concrete)
- Seismic C1 & C2
- ETA according to EAD 330087-00-0601 (TR023: Rebar
- Connections)
- 100 years' service life
- Fire Resistance report F240 (post installed rebar connections)
- ICC-ES According to AC308 (Pending)
- A+ French VOC (Emissions Class)
- LEED Tested
- WRAS Material Approval (Potable Water Contact)

- Structural applications in cracked and non-cracked concrete, applications in seismic zones (C1 & C2)
- Crash Barriers
- Structural Steel
- Facades
- Post-installed rebar connections
- Starter bar applications







## **Anchor Fasteners Accessories**

## Chemical Anchor Stud Grade 5.8 & 8.8, SS304 and SS316



#### Description

The Chemical Anchor CAS is a chisel ended anchor for use with any of our injection systems and glass capsules in masonry and concrete. On Installation the stud becomes chemically bonded to base material. The nut may be removed and replaced without affecting the anchorage. The chemical anchor CAS is supplied complete with high tensile hex nut and plain washer in addition to one external hex drive adapter in each box.

#### **Features**

- Suitable for non-cracked concrete
- High loading capacity

Product code

CAS08

CAS30

- SS material for corrosive environment
  - Suitable for dry & water saturated concrete
- Anchor Stud length longer than one meter (1000mm) can be manufactured on specific request

Over All Size (mm) Overall length(mm) Package content

110

Rang	e:
M8 x	M110 to M30 x 1000

## Super Capsule



## Description

The chemical capsule CCS is a high performance rapid cure. Spin-in chemical anchor system is based on optimum measured proportions of high strength epoxy acrylate resin, chemical activator and quartz aggregate sealed in a glass capsule. It is a fast install, simple to use system requiring no special tools and provides high strength stress free anchoring in concrete and solid masonry.

#### **Features**

Fast, easy installation-no special adaptors required for setting

CAS08

CAS30

- Excellent chemical resistance
- Components are mixed during installation of rod or rebar

#### Application

- Rapid cure
- Consistent load behavior
- Suitable for static and dynamic loading
- Fast and simple to install
- Vibrantion Resistant

Range: M10 x 90 to M24 x 210	Product code	Over All Size (mm)	Overall length (mm)	Package content
	CCS08	10-24	80-210	1

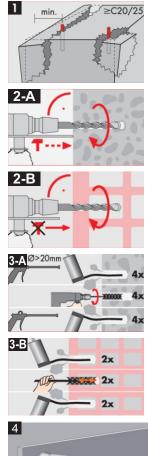
#### Application

Fastening in concrete

1

Machine Foundation

## ICFS Mechanical Anchor Fasteners Product Application guide



1 Base M

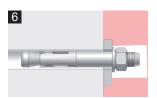
Base Material

2 - A, 2 - B Drilling Drill correct hole size and depth on concrete

## 3 - A, 3 - B

Hole cleaning Blow out dust and clean the hole with brush, then blow out remaining dust and repeat.





7

#### 4 Fixing Mechanical Anchor

5

Tightening to specified torque

### 6

Installation

### 7

After Installation

## **Mechanical Anchor Product Description**

### Indo Wedge Anchor IWA (ETA Approval)



#### Description

The indo wedge anchor IWA can be installed through the work piece. This saves considerable time in installation avoiding alignment errors and provides an exceptionally efficient retention method for fixing to concrete and stone. Its firm fixing action permits repeated removal and replacement of the nut without weakening the anchorage.

As the bolt is driven into the fixing hole the clip is compressed ensuring a tight interference fit. When torque is then applied to the nut the tapered section of the bolt retracts through the clip which expands to create a rapid and permanent grip.

Range: M8 x 75 to M24 x 250

Product code	Over All Size	Overall lenght	Package
	(mm)	(mm)	content
Indo Wedge Anchor 8115	8-24	115-220	

#### Features

- Roughness working principle; installation by Use for high loads.
- Assessed for two installation depths.
- Easy installation.
- Use in non-cracked concrete.
- Previous installation, or through the fixture.
- Use for static or quasi-static loads.
- Three versions zinc plated, stainless steel A2 and A4.
- Variety of lengths and sizes, assembly flexibility.
- DIN 440 for fixing wood structures to concrete.

#### Application

- Structural applications in non cracked concrete.
- Safety barriers.
- Billboards, machinery, boilers, signals, steel beams.
- Fixing wood structure in concrete

#### Approvals

ETA according to EAD 16/0502 of 20/08/2016





## Mechanical Anchor Product Description Through Bolt Anchor TBA



#### Description

The through bolt anchor TBA can be installed through the work piece. This saves considerable time in installation avoiding alignment errors and provides an exceptionally efficient retention method for fixing to concrete and stone. Its firm fixing action permits repeated removal and replacement of the nut without weakening the anchorage.

As the bolt is driven into the fixing hole the clip is compressed ensuring a tight interference fit. When torque is then applied to the nut the tapered section of the bolt retracts through the clip which expands to create a rapid and permanent grip.

Range: M8 x 75 to M24 x 250

Product code	Over All Size	Overall lenght	Package
	(mm)	(mm)	content
Through Bolt Anchor 875	8-24	75-250	

#### Features

- Easy installation
- For use in cracked and non-cracked concrete
- For medium-high loads
- Previous installation, or at the drilling of the material to be fixed
- Wide range of lengths and diameters available: installation flexibility
- For static or almost static loads
- Simple Through fixing, eliminating the need for setting or marking out.
- Same drill size and body diameter.
- High strength solid steel shanks.
- Fast and easy to install, simply push though the fixture, tap into a clean drill hole and tighten.

- Anchoring sheets
- Protection fences
- Metallic structures
- Overhead power cabling
- Bridges
- Traction concrete
- Elevators
- Urban furniture
- Pipe supports
- Machinery foundation



## Mechanical Anchor Product Description Drop in Anchor DIA



#### Description

The Drop in Anchor DIA is internally threaded to offer a suitable fixing in conjuction with all standard types of metric bolts, et screw and studding. The drop in anchor DIA creating, permanent and reusable internal thread in the base material. After inserting the drop in Anchor.

#### Range: M6 x 25 to M20 x 80

Product code	Over All Size	Overall lenght	Package
	(mm)	(mm)	content
DIA0625	06-20	08-25	50

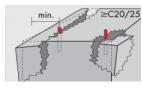
#### Features

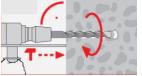
- Flush surface finish means fixtures can be relocated easily material
- Versatile, Usable with standard metric bolts sets, screws or studding
- Quick and easy to install
- No thread damage when hammering the Drop in Anchor into the drilled hole
- Stainless steel version available for corrosive environments
- No flared end for easy setting in greater depth
- Allows for shallow embedment without sacrificing performance
- Hammer set anchor with internal thread for propositioned installation
- Suitable for all screws or studs with metric threads

#### Application

- For use with bolts or threaded rods
- Fastening diamond core drilling rigs / base plates
- Pipes and sprinkler systems
- Steel constructions
- Cable trays
- Suspended from ceiling

## Product Application guide











**Base Material** 

#### Drilling He

Hole Cleaning

Hammer

Fixing

## Nylon Anchor Product Description Nylon Plug NFP



#### Description

The nylon frame plug NFP provides a professional and secure method for the fixing of doors and window frames. It has an elongated nylon plug body incorporating a countersunk collar and is supplied complete with heavy gauge screw in either countersunk or hexagonal head.

#### Application

- Ideal for timber battens, wooden batten, skirting facade and roof substructures
- Metal & plastic, window and doorframes, Metal profiles, fire doors, panels and cladding
- Screw guide stops screw from penetrating sides, by ensuring positive tracking down entire length
- Offset block profile allows plug to hold firmly against sides of hole when expansion begins
- Countersunk collar reduces risk of bi-metallic corrosion when fastening non-ferrous fixtures

	Product code	Over All Size (mm)	Overall lenght (mm)	Package content
Range: M10 x 80 to M10 x 160	NFP10080SC	10 - 10	100 - 160	50

### Hex Head Screw HHS - Universal Frame Anchor



#### Description

The ICFS Universal Frame Anchor is a light duty, rotation setting, interference fit anchor, designed for use in a variety of substrates such as concrete, stone, solid brick, hollow brick, solid block, hollow block, hollow slab block and lightweight concrete (AAC) block. Available in various sizes with countersunk or hex head screw.

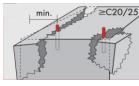
#### Application

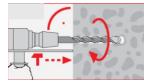
- Frame work
- Base plate fastening in steel and metal construction
- Railings and handrails
- Removable fastenings

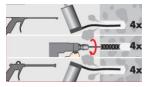
	Product code	Over All Size (mm)	Overall lenght (mm)	Package content
x 100	HHS1080	10 - 10	80 - 100	50

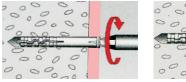
#### Range: M10 x 80 to M10 x 100

### Product Application guide

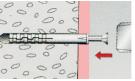








Screwing



Base Material

Drilling

Hole Cleaning

Fixing

## **Nylon Anchor Product Description**

## Nylon Hammer Fixing Plug NHF



#### Description

The nylon hammer fixing plug NHF is a time saving hammer-in nylon plug with pre-assembled zinc plated nail-screw. The nylon hammer fixing plug NHF expands when the nail is driven in and holds by friction in the drill hole. Suitable for most types of base materials. Long expansion area, nail-screw with reinforced neck and pozidrive head. Fixture can easily be removed.

#### Application

- Deforming crumple zone allows for quick adjustment of depth on uneven surfaces
- Brand point allows for quick and easy insertion of the Hammer plug into the pre-drilled hole
- Long expansion aces provides a more efficient fix even in light weight aerated concrete
- Off-set block profile ensures that as plug expansion commences, it is held firm against the hole
- Obligue thread using the barbed hook principle achieves good pull out figures without sacrificing speed of application

Product code	Over All Size	Overall lenght	Package
	(mm)	(mm)	content
NHF5040CK	5 - 8	40 - 160	50

## Nylon FD Plug

Range: M5 x 40 to M8 x 160



#### Description

The nylon plug NP is considerably stronger than standard grade plastic expansion plugs, these high quality wall plugs are designed for use with all screw fixings in masonry and concrete. High impact load and knock in protection prevents distortion on installation.

#### **Application**

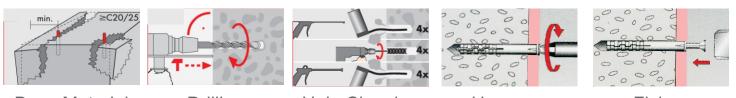
Suitable for wood and chipboard screws

Screw guide stops screw from penetrating sides, by ensuring positive tracking down entire length

Product code	Over All Size (mm)	Overall lenght (mm)	Package content
FD0420	4 - 8	20 - 40	50

Range: M4 x 20 to M8 x 40

## Product Application guide



**Base Material** 



Hole Cleaning

Hammer

Fixing

## **PU Foam Product Description**

## 1K Assembly PU Foam



#### Description

ICFS FOAM 1K is a one-component, self expanding, ready to use polyurethane foam with CFC - free propellants, which are completely harmless to the ozone layer.

High performance one-component expanding PU foam

#### Application

- Installation of window and door frames.
- Filling of cavities.
- Sealing of all openings in roof constructions.
- Creation of a soundproof screen.
- Mounting and sealing of window and door frames.

	Product code	Overall Size (ml)	Package content
One Time Use Only	1KAF	750	1

### 1K Fire Rated PU Foam B1



#### Description

ICFS High-quality fire insulation foam with straw applicator with low post expansion for demanding users. The new and narrower straw applicator ensures good foam structure and high output. The new trigger is suitable for temporary airtight sealing of the straw during work pauses.

High performance one-component expanding Fire Rated PU foam

- Installation of fire-proof doors & windows.
- Sealing of joints in fire rated walls.
- Insulation of feed through of pipes and cables.
- Sealing and fixation of pipes as well as thermal insulation any place where high fire-proofness is required.

	Product code	Overall Size (ml)	Package content
One Time Use Only	1KFRF B1	750	

## **PU Foam Product Description**

## 1K Assembly Foam PRO



PR(

#### Description

ICFS FOAM PRO with CFC-free propellant is a one-component, self expanding, ready to use polyurethane foam. It contains CFC-free propellants, which are completely harmless to the ozone layer.

#### High performance Gun-Grade expanding PU foam

#### Application

- Installing of window and door frames.
- Filling of cavities.
- Sealing of all openings in roof constructions.
- Creation of a soundproof screen.
- Mounting and sealing of window and door frames.
- Connecting of insulation materials and roof constructions.

	Product code	Overall Size (ml)	Package content
18 Months Shelf life	1KAFP	750	1

## 1K Fire Rated B1 Gun Grade PRO

#### Description

ICFS FOAM 1K is a one-component, self expanding, ready to use polyurethane foam with CFC - free propellants, which are completely harmless to the ozone layer.

High performance Gun-Grade expanding Fire Rated PU foam

- Installation of fire-proof doors & windows.
- Sealing of joints in fire rated walls.
- Insulation of feed through of pipes and cables.
- Sealing and fixation of pipes as well as thermal insulation any place where high fire-proof ness is required.

	Product code	Overall Size (ml)	Package content
18 Months Shelf life	1KFRFP B1	750	1

## **Gun Cleaner Product Description**

### Foam Gun Cleaner



#### Description

Gun & Foam Cleaner is a ready to use cleaning can for ICFS Gun and PU Foam Pro.

#### **Features**

- Gun & Foam cleaner used in cleaning cans for use on ICFS PU
- Foam Gun and foams.
- By Gun & Foam cleaner Cleaning of the valves of the ICFS PU Foam
- By Gun & Foam cleaner Removal of uncured foam.
- Gun & Foam cleaner Used in conjunction with ICFS PU Foam Gun and the foam Applicator as cleaning fluid.

Cleaning Spray for removal of uncured Construction Foam tools and surfaces

Product code	Overall Size (ml)	Package content
GAFC	500	1

## PU Foam Spray Nozzle



Descr	iption
ICES 1	K-Ass

CFS 1 K-Assembly Polyurethane PU Foam Straw Spray Nozzle.

Hand Operated Material: Plastic

Product code	Overall Size (mm)	Package content
SN200	10 - 200	1

### Pu Foam Spray Dispensing Gun



#### Description

ICFS PU Foam Heavy Duty Professional Expanding Foam Gun Applicator. professional expanding foam gun can be widely used, easy to operate, spray evenly, will not be wasted.

Hand Ope	erated			
Material:	Plastic	&	Stainless	Steel

Product code	Overall Size (mm)	Package content
FGPRO1141	8	1

## Accessories

## Blow out pump BP



Hand Operated Material: ABS

#### Description

The hand operated blow out pump BP is for drill hole cleaning prior to anchor installation.

#### **Important Note:**

Performance based on clean holes;

HAMMER DRILLED - blown and then brushed with a still metal brush & blown again.

Product code	Overall lengh (mm)	Package content
BP280	280	1

## Dispenser DM 350



350ml side by side 10 :1 ratio cartridge Material: Steel body & mechanism

#### Description

The professional dispenser DM350 for use with chemical mortar cartridges.

Dispensers are also available suitable for 400ml 1:1 cartridge, 410ml cartridge and 585ml 3:1 cartridge

Product code	Overall lengh (mm)	Package content
DM350	350	1

## Chemical Mixer Nozzle



Variant: CM350 / CM585PE Material: Plastic

## Cleaning brush CB



Variant: Hand Operated Material: Steel body & head

#### Description

Mixer Nozzle used with ICFS resin cartridges.

Chemical mixer nozzle can also be used with other brand chemical cartridges

#### Description

Wire brush CB is for thorough cleaning and hole preparation.

Product code	Lengh	Overall lenght	Package
	(mm)	(mm)	content
CB0816	13	8-16	1



www.indospark.com



A brand of Indo Spark Group Since 1978

### INDO SPARK CONSTRUCTION SERVICES

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#### **BRANCHES**

Mumbai Pune



#### **CHANNEL PARTNER**

