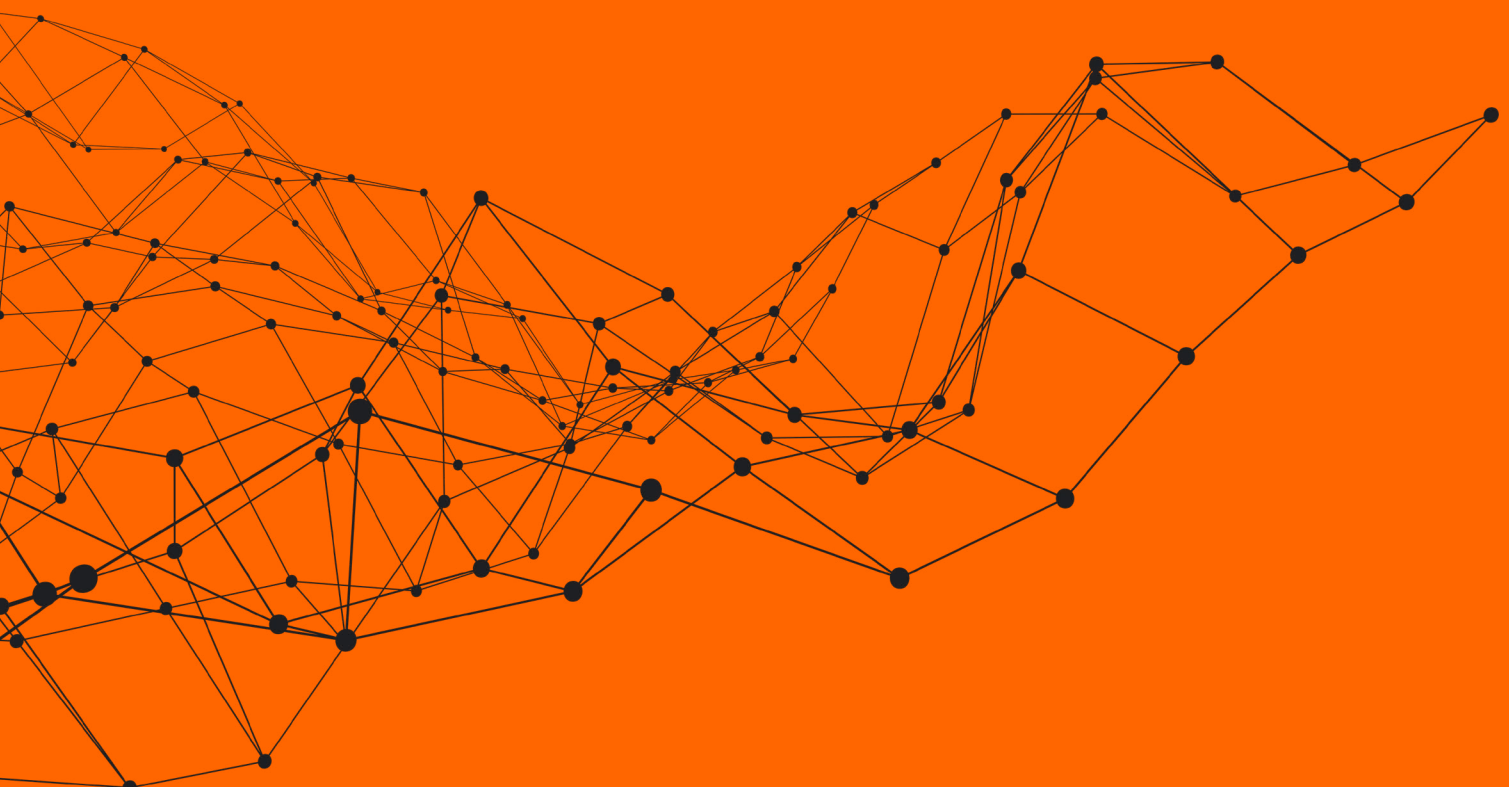




**DEEP** EXPLO



# **Company Profile**<sup>2021</sup>



# Solutions Rendered

DEEP EXPLO

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# About Us

**DEEP** EXPLO

**Commercial Explosives**

**Defence**

**Automation**

**Manufacturing Services**

**Industrial Components**

Deep Explo has been at the forefront of innovating new technologies since its founding in 1989. We specialize in satisfying the needs of our customers, especially in high safety and high precision areas like Commercial Explosives industry and the Defence Sector.

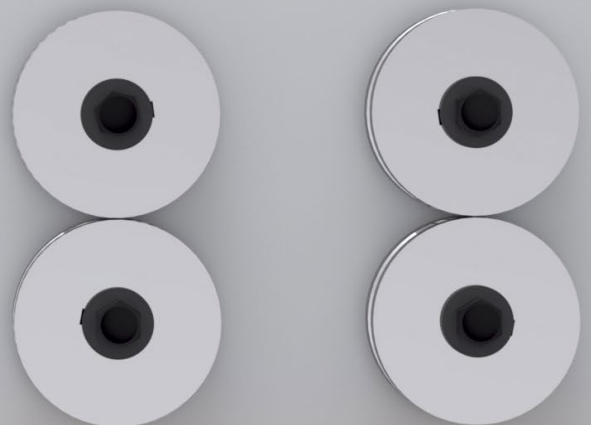
We provide custom-designed machines, highly precise components, Consultation, Automation, and Manufacturing Services. In Addition, Toolkit by Deep Explo, an all-inclusive Industrial Components Distributor, provides procurement services for the same. We have a catalogue of over 90 Special Purpose Machines, over 5000 different parts, and are serving over 100 clients in more than 25 countries.

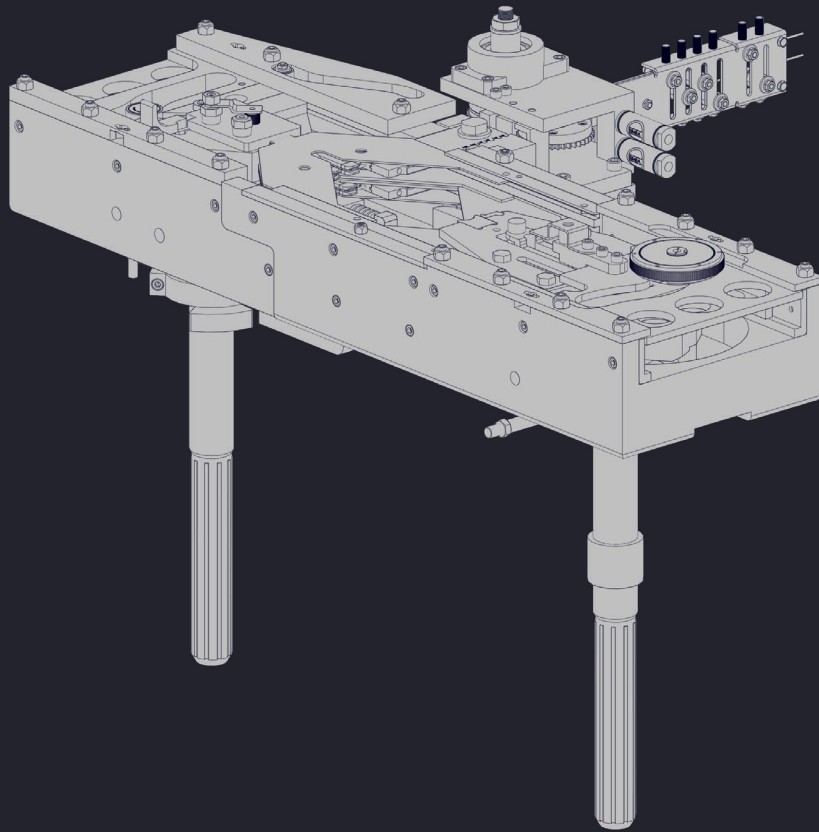
We have three manufacturing facilities, 2 in Aligarh, UP, and 1 in Hyderabad, Telangana, where we produce almost 10K components daily. Our manufacturing facilities include VMC's, CNC's, EDM WireCut. Z-NC EDM, Up to 7 Stage Deep Draw Presses, Double Action Presses, and High Capacity Welding Machines.

Our dedicated projects team is capable of SPM designing, PLC programming, Electrical Panel Designing, Designing Assembly Lines, and providing consultation services for explosives plant erection and management.



**DEEP** EXPLO





# Our Philosophy

Our Corporate philosophy is geared towards Customer Satisfaction. We elucidate every aspect of the deliverables with our clients and aim towards transparency at every project stage. We aim towards providing complete documentation and provide training while implementing any new technology. We strive to provide the best service possible and even offer a 100% replacement policy if the final product does not meet your satisfaction. We believe in becoming a business partner instead of just a supplier. Your success means our success.

# Our History

DCM - 18



Deep Explo Equipments was founded in 1989 by the late Mr. JK Saxena. The first product introduced was the DCM series, a packaging machine for packing large-diameter packaged Explosives replacing the rubber bands being used with Aluminium Wire Clips. In 1996 we completed our first order for the Ordnance Factories, a Double Action Presses for making BOFORS Shells. By 1992 we established the first indigenous Detonator Shell Plant and a Fuse Head Plant in India. By 2014 we had a massive presence in Southeast Asia and became the market leaders in providing specialized components and machines for the Commercial Explosives Industry. In 2017 we introduced our first Industry 4.0 Ready SPM, DN-2, for winding shock tube coils.

Over the past 30 years, our manufacturing capabilities have expanded drastically. As a result, we have various manufacturing, inspection, and development equipment at our disposal.

We have increased our production capacities multi-folds in the past three years, adding new machinery and technologies to our arsenal. We added a whole new Automated machinery shop and a new Paint shop in the past years alone.

We are using technologies like data analysis, AI-based designing, and manufacturing systems and are continuously evolving our way of doing business so that we can serve our clients to the best of our abilities by continuously evolving our way of doing business so that we can serve our clients to the best of our abilities.

**DEEP** EXPLO

# Capabilities

## Management

The entire enterprise is governed and managed by Microsoft Dynamics NAV, an Enterprise Resource Planning system to ensure an active and trouble free experience for all our stakeholders.

## Engineering & Development

Engineering and Innovation have been at the core of our work values since the beginning. Having developed more than 90 Special Purpose Machines for a diverse field of work allowed us to learn and master various skills and verticals, placing you at an advantage in having us as your development partner.

We have worked immensely in the following sectors-

- Pneumatics & Electro-Pneumatics
- Hydraulics
- Complex Mechanical systems
- PLC Programming & implementation
- Custom Built Electrical control panel
- Mechatronic systems
- Motion Drive systems
- Machine vision
- Machine learning
- Industry 4.0
- Data analytics
- Process/Plant Automation

## Certification

We are an ISO 9001: 2008 certified company working towards enterprise-wide implementation of the following

- ISO 45001:2008
- ISO 14001:2015
- 5S Management
- ZED Certification
- MUDA, MURA & MURI
- Kaizen

# Software

We use the following suite of licensed software to ease the development and production activities of the company to better cater to customers requirements-

- SOLIDWORKS 2019
- SOLIDWORKS Inspection
- SOLIDWORKS ePDM
- SOLIDWORKS Visualize
- SOLIDWORKS CAM
- eDrawings Professional
- Siemens NX
- Siemens TIA Portal Advanced

We have implemented centralized servers to manage product data through multiple iterations, ensuring seamless data synchronization across all the domains while still retaining all the previous iterations for future requirements.

# Quality

Quality has been the most crucial aspect for us. We strictly follow ISO quality standards and use the following equipment to meet our customer's needs.

- Profile Projectors
- Camera based inspection system
- Inspection microscope
- Hardness testing machine
- Surface finish tester
- Surface coating tester
- Precision weighing scales
- Custom gauges
- Range of Vernier Calipers, Height Calipers, Micrometer, and more.

# Awards

We won the award for India's top 5000 SMEs in 2017 and later in 2018 were interviewed by Times Group's ET Now news channel as an emerging SME.

Won the TATA & BCCI, Annual MSME Excellence Award 2020-21.



# Equipment

Having a catalogue of over 5000 different products requiring varied manufacturing equipment requirements, over the past 30 years, we have inculcated various types of manufacturing capabilities in our portfolio, from deep drawing to metal cutting and more. Specification and capabilities for the same are given below -

## Turning

Our workshop consists of 15 automated CNC lathes and conventional lathe equipped with part-steady, turret/linear tooling/tool post tooling systems, collet chuck, and multi-point chuck.

### Specifications-

Minimum Diameter	1.5mm
Maximum Diameter	500mm
Maximum Length	2000mm
Minimum Tolerance	0.01mm

## Milling

We have a very diverse range of milling machines. We have Universal Milling machines, standard milling machines with DRO, VMCs, VMCs with auto tool changing system.

### Specifications-

Maximum Dimensions	800*600*550mm
Minimum Tolerance	0.01mm

## Grinding

### Surface Grinding

We have 5 high precision surface grinders to grind and cut parts with high precision.

### Specifications-

Maximum Dimensions	400*125*300mm
Minimum Tolerance	0.01mm

## Cylindrical Grinding

We have multiple Cylindrical grinders with high precision that we generally use to grind very high precision explosives pressing punches, deep draw punches, and carbide dies.

### Specifications-

Maximum Diameter	150mm
Maximum Length	300mm
Minimum Tolerance	0.01mm

## Sheet Metal

We have machines and equipment available in-house to manufacture complex sheet metal parts with ease.

### Specifications-

Minimum Sheet Thickness	0.1mm
Maximum Sheet Thickness	30mm
Minimum Tolerance	0.01mm

## Un-Conventional Machining

### CNC Wire-Cut

We have an automatic CNC Wire-Cut machine.

### Specifications-

Maximum Part Size	200 X 300 X 100 mm
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### Electric Discharge Machine

We have an automatic ZNC Electric Discharge machine as well.

### Specifications-

Maximum Part Size	200 X 300 X 200 mm
-------------------	--------------------

# Formed & Deep Drawn

Micro Deep Drawn components have been our forte since the beginning. We have a custom In-House Developed series of Patented automated deep draw presses capable of up to 7 stages of transfer deep drawing to cater to a vast and varied drawn component market. Apart from them, we have multiple Hydro-Pneumatic presses, Double Action Presses, and Hand presses.

<b>Press Speed</b>	Max: 75 Strokes/min	
<b>Maximum Draw Depth</b>	110 mm	
<b>Diameter</b>	Min : 2.5 mm	Max (Blanks) : 100 mm
<b>Maximum Part Length</b>	110 mm	
<b>Sheet Thickness</b>	Min : 0.25 mm	Max : 2.5 mm
<b>Tolerance (+/-)</b>	±0.01mm	
<b>Materials Available</b>	Aluminium	Stainless Steel
	Galvanized Steel	Carbon Steel
	Brass	Steel
	Nickel Alloy	Copper
	Pre-Plated Steel	Beryllium Copper
	Lacquered Aluminium	
<b>Production Volume</b>	No Minimum	
<b>Metal Stamping Features/ Finishing Services</b>	Powder Coating	Stress Relieve
	Anodizing	Plating
	Vapor De-greasing	Painting
	De-burring/Tumbling	Tapping/Threading
	Annealing	
<b>Drawing Formats supported</b>	AutoCAD (DWG, DXF)	
	SolidWorks (SLDPRT, SLDDRW, SLDDRT)	
	PDF	
	JPG or any other image format	
	Reverse engineering from samples also possible.	

**We can even develop custom Metal Drawing Machines.**

# Welding

We have an expansive metal welding shop with custom-built fixtures to precisely and accurately weld components as per the customer's needs.

We can easily handle almost every metal, including-

- Iron
- Steel
- Aluminum
- Copper
- Brass etc.

We have the following welding capabilities in house-

- Oxy-fuel welding and cutting
- Gas Welding
- Arc Welding
- MIG - Gas Metal Arc Welding (GMAW)
- Stick - Shielded Metal Arc Welding (SMAW)
- Spot Welding
- Brazing
- Soldering

## Surface & Heat Treatments

We have the following surface & heat treatment facilities available in-house-

- Heat treatment ovens
- Powder coating
- Anodizing
- Chromate Conversion Coating, Nickel-plating
- Tin plating
- Zinc plating
- Passivation
- Phosphating
- Electroplating
- Lacquering
- Electro-polishing
- Ultrasonic Cleaning
- Saw Dust rumberling
- Painting

- De-burring machines
- Hot & Cold TCE Bath

# Additional Equipment

Apart from the above mentioned, we also have the following equipment -

- Radial Drill
- Shaper
- Planer
- Multiple Drill Centers
- Multiple Tapping centers
- Spot welding stations
- Soldering Stations
- Universal Tapping Center
- Power tools
- Computer rendering Stations
- Tool and die grinders
- Laser cutter
- Power presses
- Pressure die casting
- Automatic Sheet metal benders
- Plastic Injection Molding
- FFM 3D Printing

# Machinery

Description	Quantity	Make	Specifications	Accuracy In mm
			Movement, Spindle / Tons, Stage	
<b>General Workshop Machines</b>				
Lathe Machine	1	SD Nanda & Sons	XY + Angular, 0.75 Kw, 915 Rpm	0.01 mm
Lathe Machine	1	Diamond Precious	XY + Angular, 0.75 Kw, 1400 Rpm	0.01 mm
Lathe Machine	1	HMT	XY + Angular, 0.75 Kw, 1400 Rpm	0.01 mm
Lathe Machine	1	Ganesh Machine Tools	XY + Angular, 0.75 Kw, 1400 Rpm	0.01 mm
Lathe Machine	1	Hmt	XY + Angular, 1.5 Kw, 1400 Rpm	0.01 mm
Lathe Machine	1	Bhagson	XY + Angular, 3 Kw, 1400 Rpm	0.05 mm
Milling Machine - 1200 Mm	4	Toong Chi	XYZ + Angular, 2.2 Kw, 1440 Rpm	0.01 mm With DRO
Milling Machine - 1000 Mm	1	Toong Chi	XYZ + Angular, 2.2 Kw, 1440 Rpm	0.01 mm With DRO
Milling Machine	1	Praga	XYZ + Angular, 3 Kw, 1440 Rpm	0.01 mm With DRO
Milling Machine	1	HMT	XYZ + Angular, 0.75 Kw, 1440 Rpm	0.01 mm With DRO
Cylindrical Grinder - 450 Mm	1	Smithson	XYZ + Angular, 0.5 Kw, 1440 Rpm	0.01 mm
Cylindrical Grinder - 300 Mm	1	Smithson	XY + Angular, 2.2 Kw, 1440 Rpm	0.01 mm
Cylindrical Grinder	1	HMT	XY + Angular, 3.7 Kw, 1440 Rpm	0.01 mm

# Machinery (Cont.)

Description	Quantity	Make	Specifications	Accuracy In mm
			Movement, Spindle / Tons, Stage	
Cylindrical Pin Polishing Machine	1	Smithson	0.75 Kw, 2800 Rpm	-
1/2" Drilling Machine	10	Indian Machine Tools Corp	Z Axis, 0.5 Kw, 1440 Rpm	1 mm
1" Drilling Machine	1	Sandhu Drill Machines	Z Axis, 1 Kw, 1440 Rpm	1 mm
Radial Drilling Machine	1	Bhagson	XYZ + Angular, 3 Kw, 1400 Rpm	0.1 mm
Hexsaw Machine	3	-	0.5 Kw, 480 Rpm	-
Automated Power Hexa	1	Bhavya Machine Tools	1.5 Kw, 1440 Rpm	-
Power Hexa	1	New Neeraj	0.75 Kw, 1440 Rpm	-
Planer	1	Bhagson	Auto XYZ, 3 Kw, 915 Rpm	0.5 mm
Shaper	1	Bhagson	Xz + Auto Y, 2.2 Kw, 1440 Rpm	0.1 mm
Surface Grinder	6	Ramanna Enterprises	XYZ Axis, 0.75 Kw, 2830 Rpm	0.01 mm
Lancer	2	-	0.5 Kw, 2800 Rpm	-
Tool Grinder	1	Praga	XYZ Axis	0.1 mm
<b>Deep Draw Section</b>				
Horizontal Bed Deep Draw Machine Capacity 110 Mm	1	Deep Explo	80 Tons, 6 Stage	0.01 mm
Horizontal Bed Deep Draw Machine Capacity 50 Mm	2	Deep Explo	50 Tons, 6 Stage	0.01 mm

# Machinery (Cont.)

Description	Quantity	Make	Specifications	Accuracy In mm
			Movement, Spindle / Tons, Stage	
Horizontal Bed Deep Draw Machine Capacity 80 Mm	1	Deep Explo	80 Tons, 7 Stage	0.01 mm
Vertical Double Action Press(Capacity 50 Tons)	2	Deep Explo	90 Tonnes	0.01 mm
Power Press 5 Ton Capacity	2	Deep Explo	5 Tons	0.01 mm
Power Press 20 Ton Capacity	1	Deep Explo	20 Tons	0.01 mm
<b>CNC &amp; VMC Section</b>				
CNC Turning Center	1	Headman		0.01 mm
CNC Turning Center	1	Jaewoo		0.01 mm
CNC Turning Center	1	Jaewoo		0.01 mm
CNC Turning Center	1	Jaewoo		0.01 mm
CNC Turning Center	1	Jyoti		0.01 mm
CNC Turning Center	1	Jyoti		0.01 mm
CNC Turning Center	1	Jyoti		0.01 mm
CNC Turning Center	1	Jyoti		0.01 mm
VMC Milling Center With 24 Atc	1	Jyoti	Bed Size 1150 X 650 mm	0.005 mm
VMC Milling Center	1	Jyoti	Bed Size 850 X 650 mm	0.005 mm



# Machinery (Cont.)

Description	Quantity	Make	Specifications	Accuracy In mm
			Movement, Spindle / Tons, Stage	
Wire Cut	1	Electronica		0.005 mm
Spark Erosion Machine (EDM)	1	Electra		0.01 mm
<b>Welding &amp; Heat Treatment Section</b>				
Gas Cutter	1			
Heat Treatment Electric Furnace	1	Walter		
Annealing Electric Furnace	1	Walter		
Mig Welding Machine	1	Koyo		
Spot Welding Machine	1	Koyo		
Tig Welding Machine	1	Koyo		
<b>Painting And Surface Finishing Section</b>				
Dryer	1			
Powder Coating Booth	3	Stratfield		
Powder Coating Gun	3	Mitsuba		
Powder Seiving Machine	1	Mitsuba		
Rumbling Barrel	1	Deep Explo		
Tce Distillation Plant	1	Supersonic		
Ultrasonic Cleaner	1	Supersonic		
<b>Power Supply &amp; Backup Section</b>				
Screw Air Compressor	1	FS Curtis		

# Machinery (Cont.)

Description	Quantity	Make	Specifications	Accuracy In mm
			Movement, Spindle / Tons, Stage	
Air Compressor	2	Ingersol		
Generator	2	Leyland		
Servo Voltage Stabiliser	1			
<b>Miscellaneous</b>				
FFM 3D Printer	1	Creality	350*350*400	

# Measuring Instruments

Description	Quantity	Range	Least Count	Make / Model
Angle Protractor	4		1 Deg	Insize
Coatmeasure-M	1		0.001mm	Insize
Combination Set (Insize 2278-180)	2			Insize
Depth Gauge	1	0-150	0.1mm	Insize
Depth Micrometer	1	0-25	0.01mm	Insize
Dial Bore Gauge	4	18-35	0.01mm	Mititoyo
Dial Bore Gauge	2	35-60	0.01mm	Mititoyo
Dial Bore Gauge	2	10-18	0.01mm	Mititoyo
Dial Bore Gauge	2	50-160	0.01mm	Mititoyo
Dial Calipers	15	0-150	0.01mm	Mititoyo
Dial Stand & Indicator	10		0.01mm	Insize
Dial Test Indicator (Pin Dial Gauge)	4	0-0.80 (0.01)	0.01mm	Insize
Digital Micrometer	1	0-1"	0.01mm	Mititoyo
Digital Vernier Calipers	2	200mm.	0.01mm	Insize
Digital Vernier Calipers	12	150mm.	0.01mm	Insize
Feeler Gauge	3	0.03-10.5mm	0.03mm	Insize
Gear Tooth Vernier	1	M1-26 (0.0mm.)	0.01mm	Insize
Hardness Testing Machine	1		1 Hrc	
Inside Spring Divider	1		Na	Insize
Magnetic V Block	6	4"	Na	Apex
Magnetic V Block	4	6"	Na	Apex
Mercury Level (Water Level)	1		1deg	
Micrometer	1	0-50	0.01mm	Mititoyo
Micrometer	12	0-25	0.01mm	Mititoyo

# Measuring Instruments

## (Cont.)

Description	Quantity	Range	Least Count	Make / Model
Micrometer	1	50-75	0.01mm	Mititoyo
Micrometer	1	75-100	0.01mm	Mititoyo
Micrometer	1	100-125	0.01mm	Mititoyo
Micrometer	7	25-50	0.01mm	Mititoyo
Pitch Gauge (Metric)	5	0.25-7	0.25mm	Insize
Radius Gauge	2	1-7mm	1mm	Insize
Scale (Steel)	5	30"	1mm	
Scale (Steel)	19	12"	1mm	
Slip Gauge (Gauge Block Set)	1	0.5-100	0.5mm	Insize
Slip Gauge (Gauge Block Set)	1	0.1"-4"	0.1mm	Insize
Spring Calipers	1	4"	Na	Insize
Spring Divider	1		Na	Insize
Taper Gauge	2	0.8-29mm	0.8mm	Insize
Try Square	6	3"	Na	
Try Square	5	4"	Na	
Try Square	13	6"	Na	
Try Square	4	2"	Na	
Vernier Calipers	2	200mm.	0.01mm	Mititoyo
Vernier Calipers	1	300mm.	0.01mm	Mititoyo
Vernier Calipers	15	150mm.	0.01mm	Mititoyo
Vernier Height Gauge	2	12"	0.01mm	Mititoyo
Vernier Height Gauge	1	18"	0.01mm	Insize
Vernier Height Gauge	1	24"	0.01mm	Insize

# Measuring Instruments

## (Cont.)

Description	Quantity	Range	Least Count	Make / Model
Dividing Head	2	200		Apex
Angle Plate	2	2		Apex
Surface Plate		3		Apex
Profile Projector		1		Meerametzer

# Clients

List of few of our clients sorted alphabetically.

- Alket Patlayici, Turkey
- Ama Industries, Nagpur
- Amin Explosives Pvt. Ltd., Nagpur
- Anjana Explosives Pvt. Ltd., Hyderabad
- Apex Explosives Pvt. Ltd., Nagpur
- Arabian Explosives, Saudi Arabia
- Aravali Explosives Pvt. Ltd., Nagpur
- Aruna Industries, Hyderabad
- Asapan Explosives Company Ltd., Thailand
- Aster Technopack Pvt. Ltd., Hyderabad.
- Autocom Industries, Baroda
- Bell Metal Works, Aligarh
- Bharat Dynamics Limited, Hyderabad
- Bharat Explosives Ltd., Lalitpur
- Black Diamond Explosives Pvt. Ltd., Dhanbad
- BME, A Division of Omnia Group, USA
- C DET Explosives Ltd., Nagpur
- Cico Technologies Ltd., Hardwar
- Commercial Explosives (India) Ltd., Nagpur
- Consolidated Explosives Group Corporation, Philippines
- D J Dynamix Explosives Pvt. Ltd., Ajmer
- Deccan Explosives Mfg. Co., Pune
- Economic Explosives Pvt. Ltd., Nagpur
- Explo Blast SDN. BHD., Malaysia
- Fakro PP SP. Z O.O., Poland
- Fakro Sp Z.O.O., Poland
- Faridabad Minerals, Hyderabad
- Giridhari Explosives Pvt. Ltd., Hyderabad
- GOCL Corporation, Hyderabad
- Godavari Explosives Ltd., Bhongir
- Haryana Explosives & Chemicals, Faridabad
- High Tech Mining Products, Bilaspur
- Hind silicates Pvt Ltd, Kolkata
- IBP Co. Limited., Korba
- Ideal Detonators Pvt Ltd., Secunderabad
- Ideal Explosives Pvt Ltd., Secunderabad
- IDL Industries Limited, Rourkela
- Indian Explosives Limited., Gomia
- Indo Gulf Explosives Ltd., Babina
- Initiating Explosives Systems India Ltd., Gomia
- Intrachem Chemicals, Nigeria
- Kalinga Wrappers, Rourkela
- Kalpana Engineering, Bilaspur
- Keltech Energies Ltd., Bangalore
- Keltech Energies Ltd., Nagpur
- Kohinoor Engineering Works, Mumbai
- Legadimartbt, South africa
- Limatherm Components Sp Zoo, Poland
- Limatherm S.A., Poland
- ECA Corporation, Singapore
- Macwin Explosives Pvt. Ltd., Bangalore
- Maharashtra Explosives Ltd., Nagpur
- Malvica Engineering Ltd., Baroda
- Micpo Seamless Rings (Gujarat) Ltd., Bharuch
- Mining & Allied Products, Hyderabad
- Navbharat Explosives Ltd., Raipur
- Navbharat Fuse Co. Ltd., Raipur
- Noble Explochem Ltd., Nagpur
- Orient Explosives Pvt .Ltd., Nagpur
- Orissa Explosives Pvt. Ltd., Rourkela
- Pawan Enterprises, Dhanbad

# Clients (Cont.)

- Premier Explosives Limited, Secunderabad
- R.K.S. Appliances Ltd., New Delhi
- Raja Explosives Pvt. Ltd., Erode
- Rajasthan Explosives & Chemicals Ltd., Dholpur
- Ramtek Industries, Hyderabad
- Regenesi Industries Pvt. Ltd., Hyderabad
- S.K. Industries, Hyderabad
- Salvo Explosives & Chemicals Pvt. Ltd., Hyderabad
- Shakti Trading Company, Faridabad
- Shankar Explosives Pvt. Ltd, Katni
- Shreeparth Of India, Ramgarh
- Shreeshyam Suraksha Udyog, Dhanbad
- Solar Components Pvt. Ltd., Nagpur
- Solar Explosives Ltd., Nagpur
- Special Blast, Raipur
- Standard Fire Works Ltd., Sivakasi
- Super Shivshakti Explosives, Bhilwara
- Tamil Nadu Industrial Explosives Ltd., Vellore
- Techno Precision Engineering Pvt. Ltd., Nagpur
- The Ammunition Factory, Pune
- The Ordnance Factory, Jabalpur
- Vetrivel Explosives Pvt. Ltd., Salem
- Vijaya Explosives Pvt. Ltd., Secunderabad

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