



## UMS Underground Mining Services

The UMS Group of companies has the ability to provide a broad range of mining and infrastructure services to its clients across a large spectrum of resource and commodities sectors around the globe. The Groups deep roots in mining going back over 50 years has enabled them to expand their skills offering to the mining industry where they can now service the needs of any client across the globe. They particularly pride themselves in their ability to effectively deliver projects in emerging economies where logistics may be a challenge. At the heart of their delivery capability is their ability to design, through engineering excellence, quality, fit for purpose infrastructure, supply chain and construction solutions to projects, for their clients, delivered on time anywhere in the world.



## Shaft Sinkers



Part of the private equity backed Underground Mining Services Limited (UK), Shaft Sinkers, the group's project execution arm has the sinking experience as well as the mine shaft engineering capability to execute shafts as deep as 3000 meters through almost every type of rock strata. Although they are able to undertake any type of underground development work, they uniquely specialise in the sinking of particularly ultra-deep and wide vertical shafts, including decline shafts, and the development of underground infrastructure used in mining and hydropower applications. Their service offering extends to shaft sinking, mining contracting, underground construction, large underground excavations and tunnelling.



Shaft Sinkers understands that rapid access to deep level ore bodies is of critical importance to its clients and to this end, the company has pioneered some of the most successful innovations worldwide aimed at speeding up shaft sinking processes.

Their experience over the past 50 years extends to the successful sinking of over 170,000 m of vertical shafts, the sinking of over 35,000m of incline & decline shafts and the sinking of the deepest shaft sunk at 2,480m in a single drop including a sub-shaft of 600m with a total depth of 3060m.



## METS Mining Engineering Technical Services

Complimenting the operational abilities of Shaft Sinkers is METS International Ltd (UK), the design company within the Underground Mining Services (UMS) group of companies. METS provides the in-house capabilities for the design of the sinking and permanent requirements for vertical shafts with various shaft diameters including headgears, shaft steelwork, conveyances, underground storage silos, bunkers, loading systems, loading conveyors, spillage handling systems, underground settlers for water handling, mud presses as well as any associated civil works for said. They also offer turnkey solutions from design to execution including geology, ventilation and mine planning.

## Work Compass

- *To provide an effective marketing setup for our Principals in India*
- *Identifying clients and marketing on behalf of our Principals.*
- *Providing technical and commercial support to our Principals.*
- *Extending assistance to clients in selection of equipment.*
- *Providing service support to our clients.*
- *Extending support to clients in procuring second – hand machinery.*



## For Further Information

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## Our Values & Beliefs

### Entrepreneurship

*We seek opportunities – they are every where*

### Teamwork

*Going beyond the individual*

### Deliver the promise

*We value a deep sense of responsibility to meet and surpass on commitments*

### Learning

*Nurturing active curiosity*

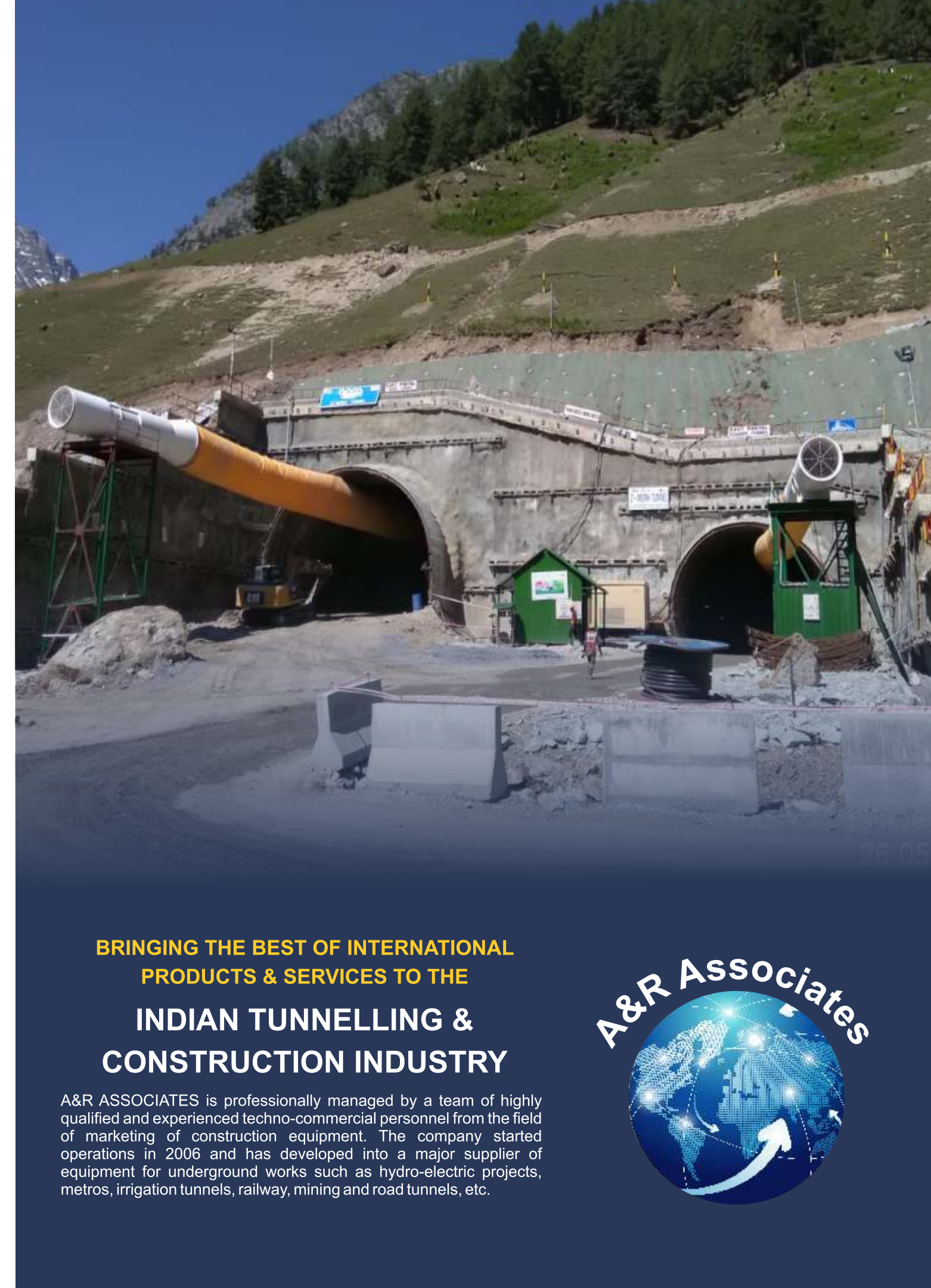
### Respect for individual

*We treat others with dignity, sensitivity and honour*

## Our Products

- Grout Pumps
- Tunnel Formworks
- Piston Type Wet Shotcreting machines
- Cable cranes, material ropeways, Flyingbelt conveyors, etc

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**BRINGING THE BEST OF INTERNATIONAL  
PRODUCTS & SERVICES TO THE**

**INDIAN TUNNELLING &  
CONSTRUCTION INDUSTRY**

A&R ASSOCIATES is professionally managed by a team of highly qualified and experienced techno-commercial personnel from the field of marketing of construction equipment. The company started operations in 2006 and has developed into a major supplier of equipment for underground works such as hydro-electric projects, metros, irrigation tunnels, railway, mining and road tunnels, etc.







### Agudio, Italy

AGUDIO specializes in heavy duty lifting and transport systems designed according to the customer needs, such as material ropeways, Flyingbelt conveyors and Cable Cranes for the construction of dams and bridges. Agudio is today synonymous with performance, quality, reliability and innovation with rope-hauled solutions specifically designed to minimize its environmental impact and improve its cost-effectiveness during operation and maintenance. Patents and inventions are developed and applied to realize new tailor-made installations and revamp existing systems. Agudio is not only involved in engineering and construction of rope-hauled systems for material transportation but also hybrid installations for the transport of materials and people.

It is where traditional means of transport cannot be applied that Agudio cablecranes show its superiority. The use of a double track rope, the high loading capacity and working speed are the distinguishing elements of Agudio cable cranes. They reflect the state of the art in this technological sector and make it possible to manage complex sites in a simple and advanced manner, with considerable advantages in terms of implementation costs and timing. Agudio's cable cranes are designed to run regularly and at maximum speeds with very short downtime for maintenance, up to 7000 operating hours per year. Agudio's range of Cable Cranes includes fixed, radial, parallel or swinging systems, with hook payload up to 50 tons.

Agudio's Flyingbelt is a patented system combining the advantages of conveyor belts and rope-hauled systems into a unique product for its efficiency and reliability. It is an aerial transport system for bulk materials on ropes with conveyor belt set in a deep semicircular conveying trough. It can be used for the mining, extraction and cement fields, as well as big construction sites. The system offers remarkable advantages like great adaptability to the most difficult morphological situations with a considerable reduction in the costs resulting from civil works, excavations and supporting structures usually required by conventional transport systems. The adoption of standard components used also for traditional conveyor belts enables the Flyingbelt to be a highly innovative system with minimum operating and maintenance methods and costs.



CIFA S.p.A., Italy

CIFA has been designing, producing and distributing innovation in the construction field. CIFA have a complete range of products for production, transportation and laying of concrete.

CIFA have developed the best technology coupled with rugged practical engineering solutions to produce equipment that are respected by engineers worldwide. Cifa manufactures formworks for tunnels, dams, bridges and viaducts.

Different types of tunnel formworks are manufactured by Cifa, such as, Self Reacting Steel Forms, Self Supporting Steel Forms, Special Formwork for Enlargements and Cross Passages, Full-round Telescopic Forms, Self Launching Full Round Forms, etc. Cifa designs formworks to suit each client's requirements, such as, articulated formwork for small sections, Special formwork for large sections with constantly changing profile, etc. They have been supplying Formworks in India for more than 20 years. They also provide formworks for Dams, Metro Stations and are associated with all big contractors & Project Owners.



### UCM Underground Concrete Machineries

CIFA Sprayed Concrete System is the outcome of innovative solutions meeting modularity and flexibility required by modern technology. CIFA technology is the perfect choice in distribution of sprayed concrete, both in tunnelling and outdoor applications. Reliability is the key feature of these machines and this means higher operational time, high durability and easy servicing.

CIFA Spritz System CSS-3 is CIFA's top class product for tunnelling, mines and underground application. Thanks to worldwide experience in Shotcrete fields of application, CIFA is proud to present its last evolution of this product: CSS3 Step III. The CSS-3 boom gives the flexibility to operate in a versatile and safe way in any kind of tunnel. On board air compressor is available as an option to make the unit independent in air production needed for shotcrete operations.

The Spritz CST 8.20 is designed specifically for use in tunnels upto 10 m in height and for mining applications. The Spritz CST 8.20 has an output ranging from 2 to 20 cu.m./hour. The solidity of the structure, compact size and versatility are the key features that allow CST 8.20 to tackle the most demanding working conditions. A unique boom feature is that it can be unfolded once the machine has reached the work place. The boom has a horizontal slewing ring that allows the operator to follow the entire profile of the tunnel, at every height, with only one joystick movement. Central articulated turning chassis has small width dimension and high maneuverability.



MASTER DRILLING

### MASTER DRILLING

Master Drilling is a global technology solutions driven company focusing on delivering a fully mechanised range of services to the mining, civil and energy sectors. They are leading global experts in drilling solutions that support the client's unique needs with their specialized in-house equipment design, manufacturing, training and maintenance capabilities. The drilling operation is automated & when compared to conventional methods of drilling and blasting it is much faster in completing the operations. Their services are Rock Boring which includes Raise boring, Horizontal Raise boring, Box Hole Boring, Slot Boring, Reef Boring,, Blind Shaft Boring System, Core Drilling, Percussion Drilling, Reverse Circulation Drilling etc. The other Support services are Directional Drilling, Stage Shaft Support, Remote-operated Shaft Support, etc. With more than 30 years experience in this field, the Raise boring fleet is the largest in the world. With over 100 rings that operate quickly and efficiency in hard rock, they are able to drill up to a depth of 1.5 km.

Raiseboring is an environment friendly vertical drilling technique, predominantly used for Ventilation, ore passes applications in Mining and for construction of Surge Shafts and Pressure Shafts for Hydro Power Projects and the machines are capable in drilling in varying types of geology.



# GERTEC

Maschinen-und Anlagenbau GmbH

### Gertec GmbH, Germany

Gertec manufactures machinery and equipment for "All Aspects of Grout – Dosing, Batching, Mixing, Pumping". Gertec products are renowned for their reliability, safety and usability. The products offered by Gertec comprise Grout Plants, Batch Mixers, Continuous Mixers, Hose Pumps and Injection Pumps, besides accessories, such as, Big Bag Discharge Station, Data Logger for measurement of pressures, volumes & flows at the pump and drill hole, Screw Conveyors for conveying dry & powdery solids, Agitator Tanks etc. Owing to their straightforward and compact design, they are used in many fields of the construction industry. The plants can be supplied with a variety of equipment options and in different configurations. These plants are available in manual operation, semi-automatic operation and automatic operation modes.

