

LOGISTICS & TRANSPORTATION OFFERING



DEFINING THE FUTURE
UNDERGROUND

normet

normet.com

UNDERGROUND LOGISTICS

Our underground transport vehicles are designed to ensure efficient logistics and high productivity in underground mines and tunnel excavations. They are highly configurable and let you safely and reliably transport a wide range of resources to work sites, including personnel, materials and fluids.

THE NEW NORMET 180° CABIN – DEFINING A NEW LEVEL OF OPERATOR COMFORT

A result of our decades-long experience in designing underground equipment is here – the all-new 180° cabin, setting new industry standards for visibility, comfort, ergonomics and serviceability.

The forward-angled windscreen prevents the accumulation of dropping water and dust, ensuring that the windscreen remains clean in harsh underground conditions. The new wide-angle mirrors with three separate sections guarantee an excellent level of visibility in every direction. When it gets dark, the high-intensity LED driving lights illuminate the way ahead.

The high-definition reverse camera with multiple alternative placement options provide real-time video footage from the back or the sides of the vehicle while the large window area with narrow a-pillars allow for a broad, unobstructed field of view.

Our new advanced suspension control allows the operator to glide over rough road conditions with ease for a world-class driving experience, while the low noise level of the new cabin increases comfort and allows speaking at normal voice levels. The cabin's roomy interior design increases space, providing comfortable accommodation for up to three passengers.



NorSmart 3 GUI for SmartDrive vehicles.

Improved comfort and ergonomics

Upgraded visibility and serviceability

Enhanced driving experience

FOPS/ROPS approved

Standardized for our customers' benefit



NORMET UTIMEC – TAILORED FOR PURPOSE

Normet Utimecs are tailored for a certain purpose, meaning that they offer high productivity with clever features and simple, robust structures. Our Utimec offering can be used for any underground transportation purpose, such as fuel, lubrication, personnel or material transportation.

PERSONNEL TRANSPORTATION

Our dedicated Utimec personnel transporters have passenger compartment options for 16 to 32 people. The personnel carriers can be equipped with a full chassis suspension, offering outstanding ergonomics for the passengers.

MATERIAL TRANSPORTATION

Utimec material transporters have a payload rating ranging from 6 to 16 tonnes and different kind of platforms available. Our material carriers can be equipped with a hydraulic crane to facilitate loading and unloading material on and off the platform.

For lighter rock transportation purposes, we offer two Utimecs with 10 t and 6 m³ or, respectively, 16 t and 9 m³ carrying capacity available. The Utimec offering also includes a unit for transporting explosives and personnel. This vehicle has a maximum payload capacity of 10 tonnes, carries four passengers and comes with a compartment for detonators and primers.

FLUID TRANSPORTATION

For oil changes and refueling machinery at the work site, we offer Utimec fuel and lube transporters with total tank capacities from 4,000 litres to 10,000 litres. All Utimec Lubes and Fuels are equipped with refilling pumps with hose reels, and filling nozzles and can also be fitted with a greasing and tyre inflation system.

For water transportation, dust suppression and fire extinguishing, we offer a dedicated Utimec water carrier with a capacity of up to 10,000 litres and different kind of pumping and nozzle systems.



Utimec MF 100 Material SD with high platform edges.

FOR PERSONNEL TRANSPORTATION

Utimec **SF 205 PER**

Utimec **MF 164 PER**

Utimec **MF 205 PER**

Utimec **MF 328 PER**

FOR FLUID TRANSPORTATION

Utimec **MF 400 Lube**

Utimec **MF 660 Fire**

Utimec **LF 1000 Water**

Utimec **LF 1000 Fuel**

FOR MATERIAL TRANSPORTATION

Utimec **SF 060 Material**

Utimec **MF 100 Material**

Utimec **MF 100 E**

Utimec **MF 060 D**

Utimec **LF 130 Material**

Utimec **LF 090 D**

Battery-electric Utimec MF 205 PER SD.



NORMET MULTIMEC – FOR CHANGING TRANSPORTATION NEEDS

MULTI-FUNCTIONAL CARRIERS WITH AN INTERCHANGEABLE CASSETTE SYSTEM

Our Multimec slide-on/slide-off cassette system is the ideal solution for mines that need carriers that can quickly change function and handle a wide variety of transport requirements. With one Multimec carrier and the right choice of cassettes, each for a specific purpose, you have a safe and economical underground transport system for personnel, materials, concrete, fuel and so on. We offer three different sizes of Multimec carriers and a series of cassettes for different purposes, all of which fit all Multimec size classes. With our hydraulic cassette handling system, these cassettes can be swapped on and off the carrier in just a couple of minutes.

Multimecs are available with a FOPS/ROPS certified open or enclosed cabin for driver and 1-2 passengers, providing superior safety, visibility and comfort for both. The Multimec MF 100 is also available with our battery-electric Normet SmartDrive® technology, allowing for silent operation and zero local emissions.



Fast cassette changing ensures the efficiency of different logistics and lifting & installation works.



C162 Personnel cassette



C603 Basket boom cassette



C500 Concrete mixer cassette



C490 Fire cassette

CASSETTES

C100 Flat deck

C100 Material

C125 Crane

C135 Crane

C300 Mixer

C500 Mixer

C280 Sludge

C162 Personnel

C600 Explosives

C600 H explosives

C600 Emulsion

C350 Fuel

C350 Water

C350 Lube

C490 Fire

C315 Scissor lift

C603 Basket boom

C100 Workshop

MULTIMEC CARRIERS

Multimec SF 060

Multimec MF 100

Multimec LF 100

THE XS OFFERING – COMPACT AND AGILE

THE VARIOMECC XS OFFERING

Our most compact carrier, the Variomecc XS, is designed to minimize total cost of ownership and provide excellent performance with best-in-class safety and payload capacity against current competition in the market.

The versatile Variomecc XS carrier fits to a 3.5 m x 3.5 m envelope and can be utilized for multiple different equipment applications. The XS carrier can transport up to 4 tonnes of payload, be it either personnel, goods or both together.

Using the same carrier for multiple purposes generates significant operational cost benefits since the majority of spare parts, most service tasks and the operator environment are same or similar in the different models. Furthermore, this renders both a smaller inventory of spare parts and more effortless serviceability possible. All daily checks can also be done from the ground level, improving the safety and efficiency of maintenance work.

While The Variomecc XS is a compact carrier, it is designed and built with our decades-long experience in the world of underground equipment. Vehicles in the XS offering have similar safety features and are as robust as our larger vehicles.

The FOPS/ROPS approved cabin allows for excellent visibility and ergonomics to ensure a safe and comfortable environment for the operator. The XS units have a fully suspended chassis and a hydrostatic transmission, ensuring a world-class ride in the roughest road conditions and ramps. The brake system, including oil-immersed axle brakes and a SAHR type safety brake, is designed to meet the demands of the underground environment.

The current XS offering includes three different applications, and the offering will continue to expand gradually in the future.

VARIOMECC XS MODELS AVAILABLE

Variomecc **XS 040 Material**

Variomecc **XS 115 PER**

Variomecc **XS 035 Crew**



MATERIAL TRANSPORTATION

The Variomecc XS 040 Material is a compact service vehicle with a 4-tonne carrying capacity. It is equipped with a crane and a roomy platform with a low loading height. The spacious cabin has room for a driver and one to two passengers.



PERSONNEL TRANSPORTATION

The Variomecc XS 115 PER is a compact underground bus with a carrying capacity of 14 persons. The roomy personnel compartment is FOPS/ROPS approved and can be equipped with heating and A/C for superior passenger comfort.

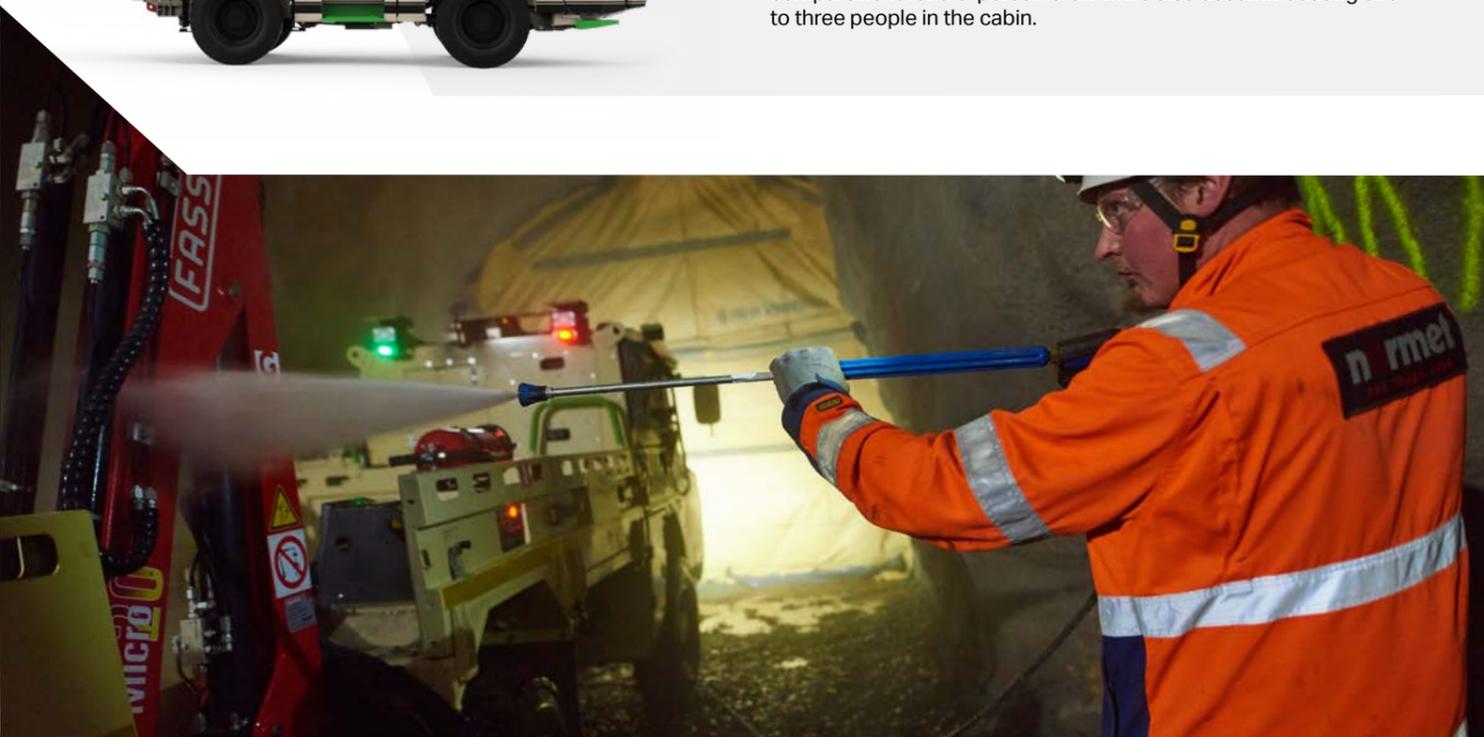


PERSONNEL & MATERIAL TRANSPORTATION

The Variomecc XS 035 Crew is a compact mine service vehicle with a 3.5-tonne carrying capacity, a crane and a spacious compartment for a 3-person crew while also accommodating two to three people in the cabin.



Scan the QR code for a video demonstrating the Variomecc XS's agility and features.



CONCRETE TRANSPORTATION



Logistics is an integral part of a successful sprayed concrete operation: transporting the concrete from the batching plant to the working area as safely and effectively as possible is of utmost importance.



EFFICIENT TRANSPORTATION

We offer a wide range of mobile concrete transportation equipment to meet the mining and tunnelling industries' needs for improved safety and higher productivity.

Our concrete transportation offering covers two different types of equipment with several different-sized concrete drums from 2.1 m³ to 7 m³ practical carrying capacity. Utimec Transmixers with a horizontal drum allow for a very low overall height and Utimec Agitators with an askew drum offer excellent mixing capability with the possibility to fill the drum with a filling hopper.

With hundreds of units delivered worldwide, our concrete transportation equipment has proven its durability and is globally recognized for excellence in quality.

UTIMEC TRANSMIXERS & AGITATORS

A dedicated concrete transportation vehicle, designed for the underground environment from the start, offers the highest level of safety and the lowest operational costs for the customer. As the vital importance of operators' safety and wellbeing is becoming increasingly recognized in underground mining, we are constantly developing safer and more ergonomic solutions such as our FOPS/ROPS approved front cabin with a fully suspended chassis to decrease operator fatigue.

Normet Utimecs are available with either engine options from multiple emission rating classes or our cutting-edge battery-electric architecture SmartDrive. Improving the efficiency of underground logistics with zero local emissions, Normet SmartDrive® is the optimal solution for concrete transportation.

FOR CONCRETE TRANSPORTATION

Utimec SF 300 Transmixer

Utimec MF 500 Transmixer

Utimec LF 500 Transmixer

Utimec LF 600 Transmixer

Utimec LF 600 Agitator

Utimec LF 700 Transmixer

Utimec LF 700 Agitator

Tornado S2



Utimec LF 700 Agitator is available with a Volvo Penta Stage V engine, helping decrease diesel particles from underground machines. Scan the QR code for a video.



NORMET SMARTDRIVE® OFFERING

The latest battery-electric technology combined with our decades-long process expertise takes underground operations to the next level. Our SmartDrive offering allows for increased performance with zero local emissions.



- 0 % local emissions
- High productivity, up to 25 % faster cycles
- Lower operational costs
- Even 30 % lower maintenance costs
- 75 % lower driving energy consumption
- Up to 50 % energy recuperation in downhill driving
- Long-life industrial grade Li-ion batteries with a lifespan of 20 000 full charging cycles
- No hot exhaust gases and very minor heating of surfaces
- Significantly reduced service brake wear
- >100 % increased uphill tramping speed and fast acceleration
- Effortless and pleasant one pedal driving
- Low noise levels
- Fast charging capability
- Standardized battery charging interfaces



INCREASED PERFORMANCE WITH ZERO LOCAL EMISSIONS

SMARTDRIVE ARCHITECTURE

Normet SmartDrive® is a modular battery-electric vehicle (BEV) architecture designed to optimize energy consumption and performance in underground mining and tunnelling applications with the latest fast-charging capable Li-ion battery technology. Our SmartDrive equipment allows for higher productivity, lower operating costs and, most importantly – zero local emissions.

Easiness of use and carefully engineered controls guarantee that the machines are safe and pleasant to operate. The fully reversible 4WD ensures safe and sure movement in the most difficult underground conditions, while the high-torque electric motors reduce tramping time to reach work sites faster and recover energy in downhill driving and deceleration. In addition, the efficient dual-circuit and oil-immersed hydraulic brakes provide additional braking power when it is needed.

Our experience has taught us the importance of reliability for our customers and, therefore, SmartDrive machines are built with industrial grade components and redundant design for maximum availability. In addition to complete turnkey solutions, we offer flexible services to integrate SmartDrive equipment step-by-step into existing operational models.

FAST CHARGING

For demanding operations where tramping distances are long, we provide fast charging solutions. Our optional fast chargers can charge batteries astonishingly quickly during operation or a break – no need for costly battery swapping.

With strategically placed fast chargers, battery charging can become a part of everyday underground operations. We offer easy-to-use fast chargers for on-site installation.

Based on the CCS (Combined Charging System) standard, our fast chargers are specifically designed for challenging underground environments and can be used to charge any CCS capable vehicle. Our CCS compatible battery charger offering includes three chargers that are described in more detail later. SmartDrive batteries can also be charged from typical underground AC sockets at any time.

Additionally, we offer a comprehensive charging service concept to ensure that you can maximize the value of your investment. The service includes charging infrastructure design consultancy, installation services, start-up training, spare parts and maintenance services.

SMARTDRIVE BATTERY CHARGER OFFERING

Our CC160 charger cabinet with 160 kW power output provides fast charging power where you need it the most. Its robust and durable design is tailor-made for harsh underground conditions.

In addition to the regular CC160, we also offer a multi-voltage version, the CC160 MV, which is equipped with a step-down transformer to suit typical grid voltages in underground work sites and the CT40, a state-of-the-art fast charging capable DC charging trolley that offers 40 kW power output and does not require permanent installation.

SMARTDRIVE L&T MODELS AVAILABLE

- Utimec MF 100 Material SD
- Utimec MF 205 PER SD
- Utimec MF 500 Transmixer SD
- Multimec MF 100 SD

SMARTDRIVE CHARGERS AVAILABLE

- SmartDrive CT40
- SmartDrive CC160
- SmartDrive CC160 MV



Normet SmartDrive® architecture for mining and tunnelling machines is optimized for their specific working environments.



Scan the QR code to watch a video explaining the SmartDrive architecture in more detail.



Normet SmartDrive® charger offering.

SMARTDRIVE EQUIPMENT OFFERING – LOGISTICS & TRANSPORTATION

FOR INCREASED PERFORMANCE

Our underground logistics and transportation offering includes a broad range of equipment to meet the needs of the mining and tunnelling industries.

All vehicles in our SmartDrive logistics and transportation offering feature a FOPS/ROPS approved cabin for improved safety and an advanced suspension system for enhanced driving comfort and increased component lifetime. Allowing for unforeseen uphill tramming speeds, superior productivity and incredible operating efficiency, the battery-electric Normet SmartDrive® is the ultimate architecture for modern-day logistics vehicles.



The SmartDrive architecture suits ideally for underground logistics like concrete transportation. Scan the QR code for a video about its many benefits.

UTIMEC MF 205 PER SD

The Utimec MF 205 PER SD with a transportation capacity of 20+2 persons is designed for personnel transportation in underground mines and tunnels. All Utimec personnel carriers are designed with our decades-long expertise in underground transportation, making them the safest and most productive solutions in the market. These purpose-built machines have a high transportation capacity with compact outer dimensions and include several safety features as standard.



MULTIMEC MF 100 SD

The Multimec MF 100 SD offers an innovative and reliable interchangeable cassette system with a powerful carrier to serve in a wide variety of different mining and tunnelling operations. Our Multimec carrier and cassettes offer the possibility to carry out almost all underground service tasks like personnel and material transportation, machine refueling, maintenance jobs and concrete transportation, just to mention a few. The Multimec MF 100 SD is a real underground workhorse allowing for an extremely high carrier utilization rate with low operational costs.



Scan the QR code to watch a video telling more about our battery-electric personnel carrier.



UTIMEC MF 500 TRANSMIXER SD

The Utimec MF 500 Transmixer SD offers the highest productivity in its size class. It has a large concrete transportation capacity and extremely high output power to ensure a high tramming speed, even when fully loaded. Our concrete transportation equipment can be equipped with a broad range of optional accessories to support the concrete transportation and spraying process and to increase the value the machine can provide.

UTIMEC MF 100 MATERIAL SD

The Utimec MF 100 Material SD is designed for efficient bulk material transportation in underground mines and tunnels. It has a payload capacity of 10 tonnes and is available in two different platform versions with either low or high platform edges (in the picture). The vehicle can be equipped with an optional crane for effortless loading and unloading of heavy objects.



NORMET'S LIFE CYCLE SERVICES

We offer an extensive range of services to maximize the productivity and safety of your operations. We strive to keep your equipment running at its best throughout its working life and can provide everything from individual parts to personnel training and full service agreements for your entire fleet. With our global service network, we can support you both at our facilities around the world and on-site at your location.

SERVICE AGREEMENTS

Our service agreements are tailored for your needs to ensure that your fleet is reliable and productive. We work with you to design the package of services that will support your equipment and operations the most. From process performance agreements to parts, maintenance and rebuilds, service agreements from Normet guarantee that you always have the service you need.

FIELD SERVICES

At Normet, we understand how important it is to keep your equipment running and performing at its optimal level. To support our customers' needs, we have built a global support network with hundreds of highly trained service engineers who provide on-site support throughout the entire life cycle of your equipment, ensuring all environmental, health and safety standards are maintained.

A certified Normet service engineer's tasks can vary from occasional on-call help to agreement-based services or working as a resident service engineer, permanently available at your site. A full on-site Normet-operated service workshop is also a common and effective way to ensure the availability of your critical underground equipment.

Normet auditing is an individual customer focused, tailored service, creating clear and measurable value for your business. The end-to-end service covers the process, the equipment, the operator and maintenance operations, ensuring that the equipment's performance can be guaranteed. This continuous improvement package can be anything from a single inspection to an annual end-to-end audit.

Like in medicine, a thorough diagnosis is crucial before any treatment is prescribed. At Normet, we undertake a rigorous, documented audit, provide you with a full review during a comprehensive debriefing session and follow up with recommendations and an implementation schedule.

GENUINE PARTS

Genuine parts from Normet ensure that you always have the highest-quality parts available to keep your equipment up and running. Depending on your needs, we can offer everything from individual parts to complete part contracts. Our professionals around the world have the experience to ensure that you have all the parts you need whenever you need them.

We ensure high availability of genuine, high quality Normet parts, including all process-critical parts as well as wearing parts, consumables and parts for periodical maintenance.

Genuine Normet spare parts ensure maximal availability of your underground equipment.

DEFINING THE FUTURE UNDERGROUND

We are a fast-growing and innovative company with a mission to lead the transformation into a safer and more sustainable tomorrow. We specialize in technologies and solutions for underground mining, tunnelling and civil construction and provide our customers with safe, high-quality equipment, services, construction chemicals and rock reinforcement solutions for projects around the world.

SAFETY IS OUR PRIORITY

Safety is our first priority in everything we do. Our goal is to help our customers increase their level of safety while improving their productivity and profitability. We develop our equipment, technologies and solutions with safety, sustainability and the welfare of people as the key drivers, taking the impact on the environment in careful consideration as well.

UNDERGROUND EXPERTISE

We support our customers with expertise gained from working on thousands of underground mining and tunnelling projects all over the world. To date, we have delivered more than 14,000 purpose-built underground machines while improving safety and productivity through our range of construction chemicals and rock reinforcement products. We also offer a range of services and support for our customers. Our company employs over 1,600 professionals with more than 50 locations in 30 countries.

CONTINUOUS DEVELOPMENT

We constantly develop new equipment, technologies and chemicals to provide additional value for our customers' underground processes. Our development teams consist of world-class experts using the latest methods and tools. We use our own laboratories to develop our construction chemicals and perform field tests for our entire offering in real-world environments. In all our work, we aim to enhance safety and reduce environmental impact.



EQUIPMENT



SERVICES



CONSTRUCTION CHEMICALS



ROCK REINFORCEMENT

OUR TRAINING OFFERING

Start-up training & commissioning

Continuous training for different types of personnel

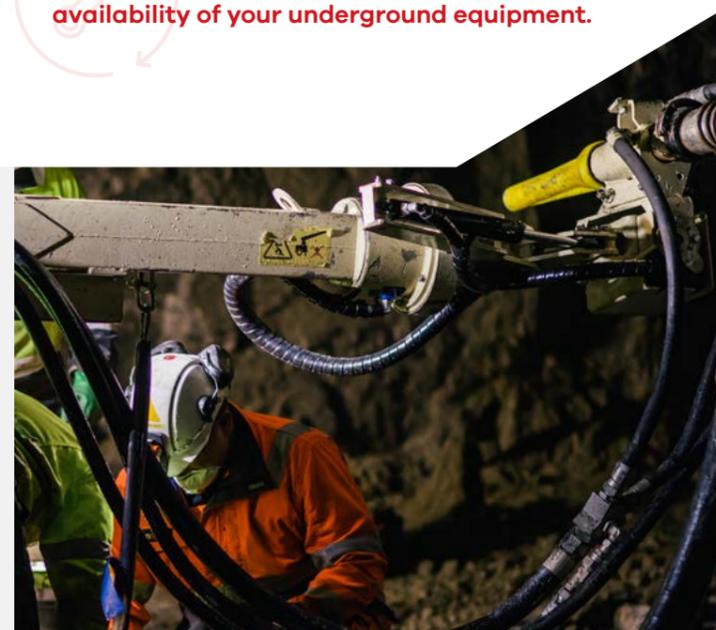
Safety aspects

General operator overview and introduction

Functions and main components

Principles of the operation

Moving and transporting





Scan the QR code to find out more about our offering.



NORMET AMERICAS
SALT LAKE CITY (USA)

NORMET FINLAND
IISALMI (FINLAND)



NORMET CHINA
SHANGHAI (CHINA)

NORMET INDIA
NOIDA (INDIA)

NORMET CHILE
SANTIAGO (CHILE)

NORMET SOUTH AFRICA
JOHANNESBURG (SOUTH AFRICA)

NORMET ASIA-PACIFIC
ADELAIDE (AUSTRALIA)

NORTH AMERICA
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Mexico
USA

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Chile
Colombia
Peru

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Finland
France
Germany
Norway
Sweden
Switzerland
United Kingdom

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Ghana
South Africa
Zambia

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INDIA
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GLOBAL PRESENCE. LOCAL SUPPORT.

We are looking forward to telling you more. Please contact your local Normet representative, visit normet.com for contact details.

