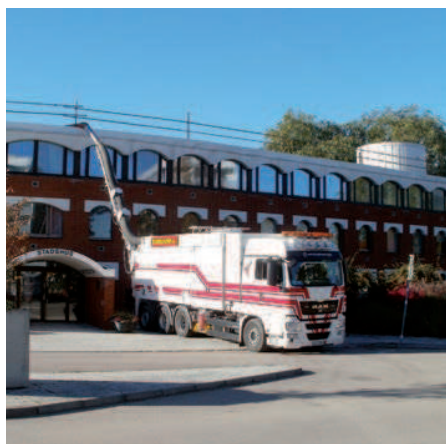




RSP Saugbagger International

Applications



RSP suction excavators - applications

RSP suction excavators are a cost-effective solution for deployment in all areas where the site conditions or the high risk of damage prevent or prohibit the use of hydraulic excavation equipment.

RSP suction excavators can be put to work immediately and guarantee fast, non-destructive removal of material with minimal disruption to traffic and the environment. All types of media can be removed by suction – including solid particles up to 250 mm in diameter. Depending on the installed power and the material, suction distances of up to 150 m and suction depths of up to 30 m can be achieved.

Suction excavators don't just make light work of everyday jobs on the construction site. On inner-city civil engineering projects, too, they play a vital role in minimising damage to pipework and cables, which in turn helps to reduce insurance claims.



00

RSP suction excavators – universal, safe, cost-efficient

On inner-city civil engineering projects, our suction excavators are primarily used for emergency repair work to power cables and water and gas supply pipes. Towns and local authorities use our machines for cleaning shafts, channels, fountains and gullies.

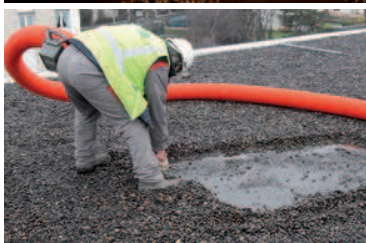
BUILDING SECTOR



EMERGENCY SERVICE



TREE RENOVATION

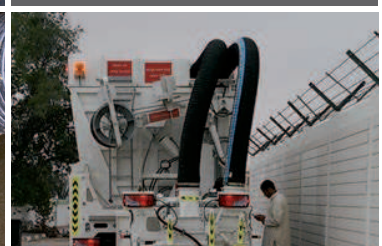


BUILDING RENOVATION



OPEN CAST MINING

CHEMICAL PLANTS



TRACK LAYING



Industrial plants are a main area of application for RSP suction excavators because here, safety is top priority. Other areas of application for our machines include restoration and cleaning work, track laying and horticulture and landscaping projects.

CIVIL ENGINEERING

DISPOSAL

CLEANING OF FLAT ROOFS

PIPE REFURBISHMENT

TUNNEL BUILDING

DISASTERS

01

Inner-city civil engineering projects

When undertaking inner-city civil engineering projects, it is not always easy to determine the route and depth of existing cables and pipes. Consequently, a high proportion of the work in the immediate vicinity of supply cables and pipes has to be carried out by hand. Here is where RSP suction excavators prove their worth, offering a safe and economical alternative to conventional manual excavation.



02 Exposing connections to properties

Suction excavators have been successfully used to connect domestic properties quickly and efficiently to utility supplies of all types. The use of suction technology enables the trench to be excavated selectively and therefore with minimal spoil. Thanks to the smaller working footprint required and the considerably shorter construction time, disruption to traffic is significantly reduced.



03 Defective supply cables

Network providers expect defective supply cables to be repaired swiftly and this presents a major challenge for the companies carrying out the work. The comprehensive range of equipment on our suction excavators, combined with a wide variety of specialised accessories, enables the excavators to be deployed quickly and independently. As a result, supplies can be restored quickly and efficiently.



RSP suction excavators make the use of additional mini excavators, compressors, trucks and personnel unnecessary. This helps tremendously in minimising costs. One particularly important consideration is the safety aspect of the suction excavator. Thanks to the low-impact suction process, further damage, which would otherwise have to be covered by insurance, is avoided.



04 Burst pipes

If a pipe bursts, you have to act quickly. RSP suction excavators can expose the damaged area of pipe in next to no time. Furthermore, our machines can continue working even while water continues to escape. Leaking water is sucked out immediately, enabling repair work to be carried out unhindered.



The pinpoint accuracy of our efficient suction technology means that the size of the construction trench can be reduced. This in turn reduces the amount of backfill and surface materials required, which has a considerable positive impact on overall repair costs.



05 Energy and communication

The cost of damage caused by hydraulic excavators can run to several million euros every year. By contrast, suction excavators from RSP do not incur any such costs. In fact, by minimising repair times compared with conventional excavation methods, they actually reduce overall costs. Whether it's damage to insulation or faults in the connecting sleeves, the damaged areas can



be very quickly isolated with a suction excavator without causing any additional damage. The suction air stream itself poses no threat to underground cable systems. Thin power or telecommunications cables offer only low resistance to the air flow on account of their small surface area, whilst large cables and pipes are protected by their inherent stability.



06 Gas pipes

Exposing damaged gas pipes is extremely hazardous for both people and the environment. The high air throughput of our powerful suction excavator technology minimises the risk of the formation of an explosive atmosphere.



An optional gas warning system continually checks the gas concentration using several sensors. If a critical threshold is reached, the machine is shut down.



07 Industry

For operators of industrial plants, the disposal of accumulated filtration materials, production waste or production residues is a hugely important task. Having a safe, problem-free production operation ensures fewer downtimes and optimised production processes.



„Whether it's coping with the special demands of highly explosive city civil engineering projects, for us the suction excavator is

Rolf Scharmann, Johann Augel Bauunternehmung GmbH



The fastest and most cost-effective method is professional removal by suction. Our suction excavators can transfer the extracted material straight into special containers ready for appropriate disposal. RSP has also developed special additional tools to assist with the disposal of materials which are harmful on contact.



explosive atmospheres, or in day-to-day use in inner-
is a safe, accurate and effective solution.“

08 Refineries

Chemical plants and refineries often have hazardous, hard-to-access areas which require thorough cleaning at periodic intervals. The highest safety standards have to be observed in refineries in order to minimise the risk to people and the environment.



„With the suction excavator, we can work effectively over long distances.“

Roberto Gerotto, Managing Director, Gerotto SRL

In industrial environments such as these, we only use remote controls with explosion-proof design features and also recommend to our customers the optionally available safety package which includes a gas warning and earthing system.



09 Bioenergy plants

Biogas plants have to be cleaned at regular intervals. To minimise fermenter downtime, the ideal time for cleaning is when maintenance work is being carried out on the fermenter or when the agitator is being changed.

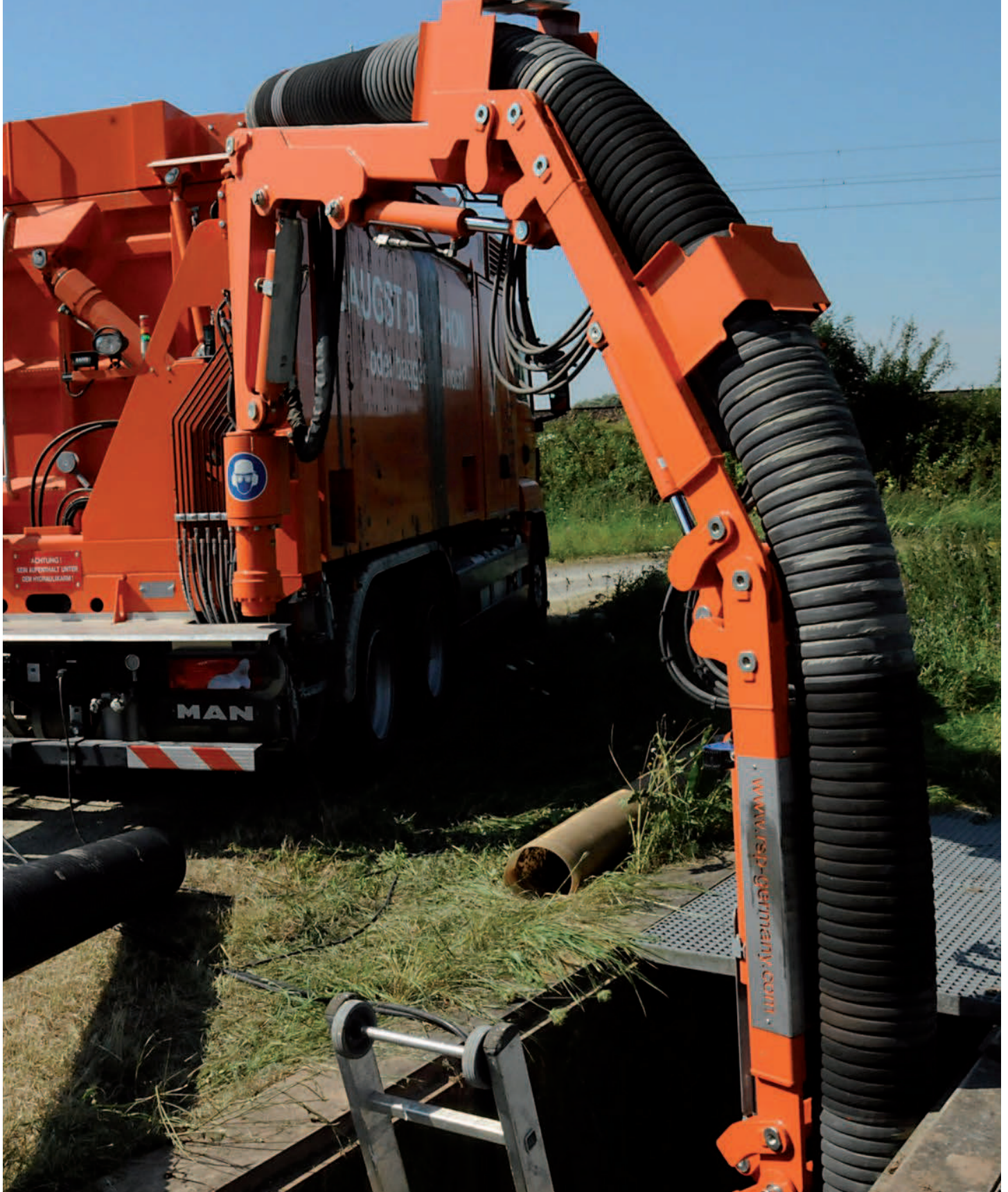


RSP suction excavators are designed so that they can be used during routine maintenance with effective results. Sinking layers, sand deposits, grass residues, raw ash content and sludge present no problem for our RSP suction excavators.



10 Disposal

Today, protecting the environment presents a bigger challenge than ever before and for us at RSP, it has already become a focal point of our corporate policy. It is precisely in this field that our suction excavators do outstanding work, extracting polluted soil and cleaning drainage channels and contaminated gutters after accidents, and much more besides.



In practice, civil engineering companies are often unable to say what contaminants are present in the soil. This is where RSP suction excavators come into their own. They enable materials to be removed without contact, thereby minimising the risk to both people and the environment at the same time. The suction tank containing the contaminated materials is easily and efficiently emptied into skips.



11

Building renovation

Building renovation is one of the most challenging and most wide-ranging of all remediation and restoration measures. Often, the entire building has to be gutted, leaving just the bare walls. Here too, our RSP suction excavators are indispensable. Huge amounts of bulk materials, building materials, spoil and rubble are created when exposing foundation walls or renovating and



lowering cellars. RSP suction excavators provide invaluable assistance in these applications, ensuring that all materials are removed quickly and efficiently without harming people or the environment.



12 Tree root restoration

Compaction and a build-up of water in the soil are the two most frequent reasons for carrying out tree root restoration work, a time-consuming exercise. If the oxygen content in the soil drops below 13 per cent, the roots can no longer grow. Many trees die or push their roots upwards, where they displace kerb stones and turn paving slabs into trip hazards.



The use of the RSP suction excavator enables the whole root system to be exposed gently and without damage, whilst also saving time. Using a compressed-air lance is useful if the soil is very heavy. The lance forces open the solid top layer of soil while protecting the roots. This allows the soil to be extracted more quickly and more easily.



13 Flat roof restoration

Cracks can quickly form in a roof skin when it is subjected to thermal stresses. Rainwater then penetrates the cracks, causing water damage such as mould in the insulation or the building fabric. In the event of major damage, complete refurbishment is often the only solution. More and more companies are using RSP suction excavators for precisely such renovation tasks on



flat roofs, garages, high-rise buildings and large industrial buildings. Using RSP suction technology in this field has proved worthwhile, replacing strenuous and time-consuming manual labour. Old gravel, chippings, sand and roofing substrate are quickly, reliably and cleanly removed even when working over long distances and greater pumping heights.



14 Track bed renovation

When replacing ballast, the old, blunted ballast between the sleepers has to be removed before the new sharp-edged stones can be laid. This job can be done easily and quickly with an RSP suction excavator. The ballast bed on railway tracks requires constant maintenance and cleaning to ensure that rainwater flows away into the subsurface. The ballast needs its edges and



the intermediate spaces to do its job properly. This cleaning work can be carried out efficiently with a suction excavator. RSP even offers a two-way drive system solution designed specifically for this purpose.



15 Special applications

It's not just in the construction sector that RSP suction technology has quickly made a name for itself. Cleaning work which previously had to be done manually, and was consequently both costly and time-consuming, can now be done much more efficiently, and with less harm to the environment, by suction technology. For specific assignments, such as the construction of the world's largest rail tunnel, various tailor-made solutions have been designed.



For cleaning work in the world-famous city of Venice, RSP developed a suction system by the name of Leonardo. It was put to work clearing Venice's clogged canals of sediment and waste. When developing the system, particular focus was placed on a low-noise design which would benefit residents and tourists alike.



16 Large-area cleaning

When a conveyor system is in operation, the material being transported may be unintentionally thrown aside for a variety of reasons. It is important that this material does not accumulate to critical levels and block the rollers, strippers or the conveyor belt itself. In addition, conveyor systems, rails and access routes must be kept clean at all times.



Machine cleaning in open-cast mines must be carried out while the conveyor system is in operation. Thanks to their cost-effective operation and high quality design, RSP suction excavators can easily cope with these harsh conditions day after day.



17

Horticulture and landscaping

Companies renovating gardens, playgrounds and golf courses are often faced with difficult tasks. Usually, heavy construction machinery is not permitted on grassed areas due to the risk of damage and the additional costs that this may incur.

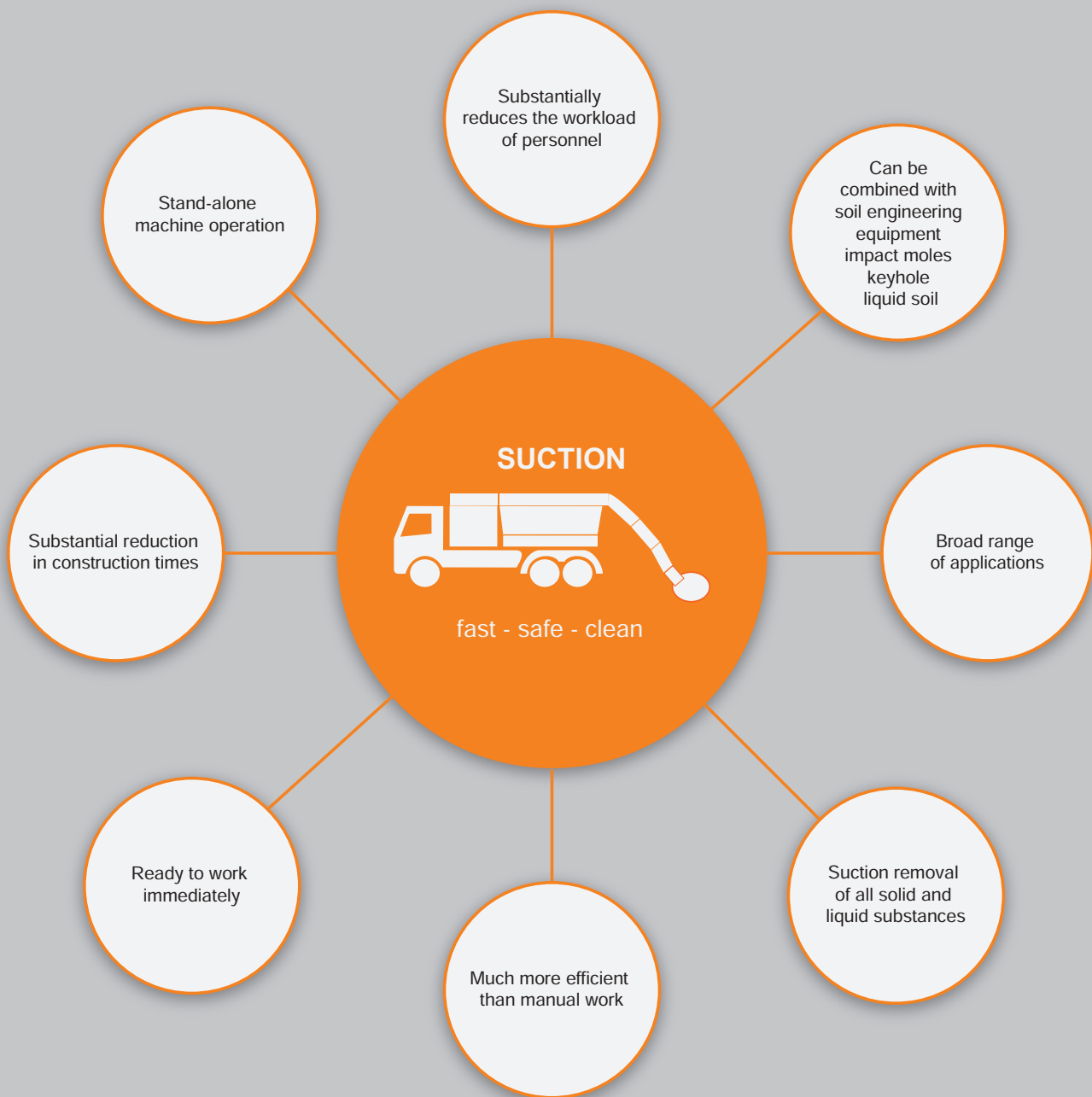


Our RSP suction excavators are designed for challenges like these. Regardless of whether they are removing soil, sand, gravel, sludge or water, they do so swiftly and with ease – even over long distances. Once removed, the materials can be moved to other locations or disposed of professionally.

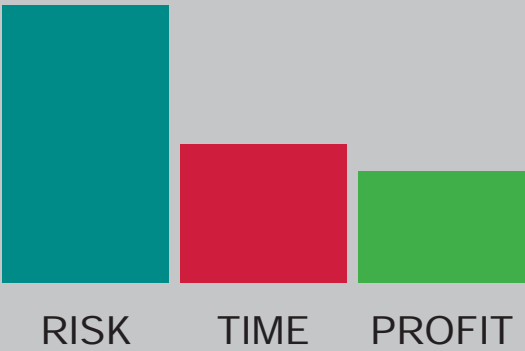


18 The advantages at a glance

SSuction replaces shovelling. RSP suction excavators are synonymous with low-impact excavation and optimum cost-effectiveness. Using a suction excavator is up to 16 times more efficient than conventional excavation methods and can replace time and cost-intensive manual labour in many different sectors. Suction excavators are safe, can be deployed quickly, are ready to work



straight away, work with minimal impact on the environment, offer a high degree of operating safety, require little space, can extract materials even through small openings, always leave a clean construction site behind and reduce the use of both machines and personnel.
But practical experience is everything. Please call or email us. We'll be happy to advise you.



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