



خانصاحب سايكس
Khansaheb Sykes



**SPECIALIST
PUMPING
SOLUTIONS**

**PARTNERS IN
DEVELOPING
THE MIDDLE
EAST FOR OVER
35 YEARS**

> OUR INDUSTRY EXPERTISE

- WELLPOINT
DEWATERING
- DEEP WELL
DEWATERING
- WATER AND WASTE
- OIL AND MARINE

PARTNERING CONSTRUCTION IN THE GULF SINCE 1976

> WHO ARE WE ?

A LONG ESTABLISHED PUMP SPECIALIST



INDUSTRY LEADERS IN DEWATERING AND GROUNDWATER CONTROL

Khansaheb Sykes are leaders in dewatering solutions. No other provider in the UAE, Middle East and MENA regions has as much expertise as Khansaheb Sykes in deep well dewatering and groundwater control, with equipment and services for both hire and sale of diesel centrifugal pumps and bore hole deep well pumps.

- Part of the Andrews Sykes Group, the UK's largest specialist hire company
- Over 150 years of experience in dewatering and ground water control.
- Construction experience in the Gulf since 1976
- Operational support and maintenance in Sharjah, Dubai and Abu Dhabi
- A dedicated and highly experienced team
- Extensive fleet of equipment readily available

A STRONG UK-BASED GROUP

Khansaheb Sykes is a subsidiary of the Andrews Sykes Group, the UK's largest specialist hire company. Our business is founded on the expertise and know-how of Sykes Pumps, which celebrated its 150th anniversary in 2007.

Henry Sykes formed his steam-based engineering company in 1857 to power the growing industry in the region. Sykes' steam engines were used to power winches, lathes, grinding equipment, overhead cranes, dock machinery and other equipment needing an external power source.

Today, 15 decades later, Sykes Pumps operates 24 hours a day, 7 days a week, often in challenging conditions, providing pumping power to industry throughout the world.

DEWATERING SPECIALISTS

Since Khansaheb Sykes was establishment in 1976, we have been involved with many key construction projects in the Gulf. In this demanding environment, we have proved that we are able to tackle any dewatering challenge, irrespective of size or complexity.

QUALITY, RELIABLE PUMPS, MANUFACTURED IN THE UK

At Khansaheb Sykes we use the best quality machinery, manufactured in the UK and rigorously tested to exacting industry standards. Our equipment is available to buy or to hire, with competitive packages. All hire equipment is serviced at regular intervals, meaning that there is less chance of any breakdowns and therefore any schedules falling behind.

EXPERTISE AND UNRIVALLED SERVICE AS STANDARD

We provide a comprehensive emergency back-up service, covering both hire and sale equipment, with a huge spares capacity and extensive workshop repair facilities. In addition, we have mobile service engineers based in Sharjah, Dubai and Abu Dhabi. This allows any site breakdowns to be dealt with quickly and professionally; emergency 'out of hours' call-out services are also available.

WE'RE THERE
WHEN YOU
NEED US...READY
TO ADVISE,
READY TO ACT

PROJECT MANAGEMENT

Before we install any long-term pumping system, we engage in an involved process of strategic planning. We dedicate a project manager to each of these projects, who will analyse the immediate demands of the application and, importantly, take careful consideration of how those needs might evolve. It means that a pumping system designed now will be powerful enough to cope with any future increased demand.

THE RIGHT TEAM FOR THE TASK

Our business has thrived for 150 years thanks to our staff, whose comprehensive training programs and sense of dedication sets them apart from other pumping professionals. The sense of trust and integrity we instill in our clients has also contributed to our success, and in the 21st century we go from strength to strength through the provision of first-class products and services that are without equal in the industry.

OUR PEOPLE

THE RIGHT PEOPLE WITH THE RIGHT SKILLS



SPECIALISTS IN OUR FIELD

Our business is led by seasoned industry professionals who have hands-on experience in all aspects of the dewatering business. We have experts in water utilities, construction site specialists, and engineers adept in marine applications. We don't just supply pumps - we work closely with our clients to deliver the best solution.

DEDICATED PERSONNEL

At Khansaheb Sykes, members of staff are fully trained in all aspects of the Groundwater Control business. Our dedicated team of engineers, support personnel and sales staff work together with the common goal of delivering a second-to-none service, from initial consultation to successful completion.



**PRACTICAL
SOLUTIONS
AND DEDICATED
SUPPORT**

> OUR SERVICES

**EXPERTISE
TO HANDLE
THE MOST
DEMANDING
TASKS**

EXTENSIVE RESOURCES ACROSS THE MIDDLE EAST

At Khansaheb Sykes, we have an extensive hire fleet of pumps, from 2" to 12" (50mm to 300mm) as standard. Plus specialist units for high head and high flow applications and a full range of dewatering equipment and pumping accessories.

Khansaheb Sykes has successfully completed a vast array of projects throughout the Middle East and in North Africa, from our depot network in the UAE and via local distributors and agents in other countries throughout the region.

Our extensive hire fleet is supported by innovative IT systems, the latest drilling rigs, our own vehicles and our own highly skilled and seasoned professional staff.

THE KHANSAHEB SYKES DIFFERENCE

As industry leaders, Khansaheb Sykes provides a unique combination of professional advice, extensive product range, wide choice of pumping solutions, on site support, complete end to end installation services, dedicated after sales support and provides pumping power 24 hours a day, 7 days a week.



SOLUTIONS TO COVER ANY SPECIALIST PUMPING REQUIREMENT

For over 35 years, Khansaheb Sykes has partnered with 1000's of customers from diverse industries including construction, water utilities, marine and oil refineries. Our extensive experience has been deployed across a broad range of projects from small applications to major infrastructure projects.



WE'RE
PROVEN ON
LARGE-SCALE
CIVIL
CONSTRUCTION
PROJECTS

> WELLPOINT DEWATERING

THE PRINCIPLES OF WELLPOINT DEWATERING

connected via a suction header pipe to a surface mounted centrifugal pump, this unit has a built in high capacity vacuum pump, which evacuates the suction pipework automatically priming the pump. Pumping from the Wellpoint installation allows lowering of the ground water within the area adjacent to, or enclosed by, the installation and excavation can take place in safe workable conditions.

Wellpoint Dewatering is one of the most economical, flexible and stable methods of dewatering available. Our site investigations and calculations together with our knowledge of previous subsoil conditions, enables us to recommend and install the appropriate equipment. Once the system is up and running we continue to support the project with our 24/7 service either on site or via our local depots.

ECONOMICAL AND FLEXIBLE

Wellpointing is an economical and flexible method of stabilising water-bearing soils during excavation. By temporarily lowering the water surface to below the greatest excavation depth soil stability of the sides and bottom is assured.

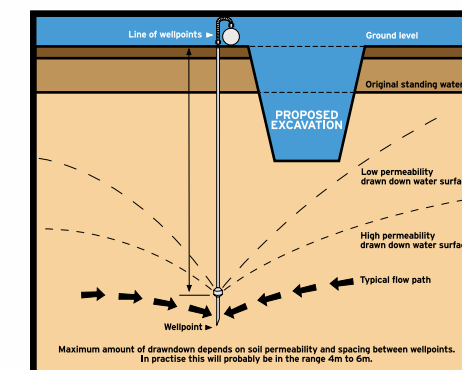
Depending on the soil conditions, support systems are often not required allowing rapid progression of work. Dewatering by Wellpoints is by no means confined to conditions of soil instability. It is widely used wherever water levels need to be lowered prior to excavations. Although there is a physical limitation on the depth to which one system can lower the water table, a multistage system installed in stages can lower the groundwater to much greater depths.



WHAT IS WELLPOINT DEWATERING?

Wellpoint Dewatering systems enable the lowering of the groundwater table, which allows safe excavation below the normal water table. This method has been used for many years for a wide range of applications from small excavations through to major construction projects. Khansaheb Sykes have been providing wellpoint dewatering solutions in the Middle East for over 35 years. This method of dewatering is easy to install, cost effective and reliable.

The principle of Wellpointing is simple. Individual small wells, called Wellpoints, which are generally 40 to 50mm in diameter and either 6 or 7 metres in length, are inserted into the soil using either a drill or high pressure water, this depends on the ground conditions. The wellpoints are installed around the proposed excavations and



**SINGLE STAGE
DEWATERING
TO GREATER
DEPTHS**

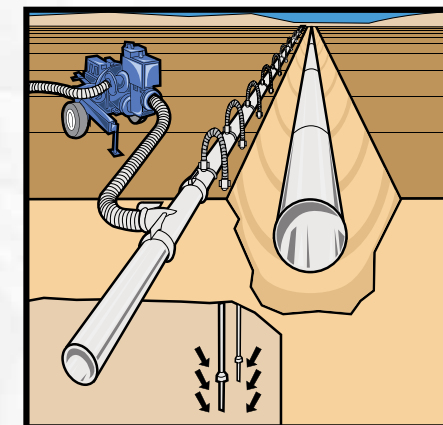
WELLPOINT DEWATERING EFFICIENT SYSTEMS FOR DEMANDING TASKS

WELLPOINT DEWATERING METHODS

Depending on the type of excavation and project requirement, different methods of wellpoint dewatering systems can be used. All of these systems are based on the same principle of using multiple wellpoints joined into a common header pipe, but the type of installations is varied to meet the demands of the project.

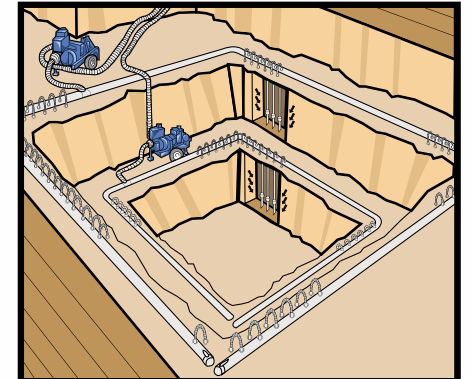
PROGRESSIVE LINE INSTALLATION

Designed for pipelines and other similar applications, a progressive or roll along dewatering approach is installed alongside the route, preceding excavation and pipe laying. Equipment from a previously completed and backfilled section is installed at the head of the line, removing the need for large quantities of equipment.



CLOSED RING INSTALLATION

Where bulk excavation is required, the most frequently employed method of Wellpoint dewatering involves the enclosure of the excavation area by a ring of header pipe with Wellpoints placed at predetermined intervals. Excavations to a depth of 5m can be effectively dewatered by a single ring of Wellpoints. Where the water table is to be lowered to a deeper level, a multiple-stage Wellpoint system is employed. Following achievement of the initial drawdown, the ground is excavated to the limits of the first stage and a second installation is set at this new level. It is possible to introduce a number of further stages in this manner, although in the case of very deep excavations, the possibility of adopting a combination of drainage systems should be considered.



BURIED INSTALLATION

Where deeper excavation is required close to other buildings or in restricted areas a buried system can be considered. With this method the header pipe is buried below the ground level which in turn allows the wellpoints to be installed at greater depth and thereby provide dewatering to lower levels.

When the water table needs to be lowered to depths greater than 6 metres, wellpoint dewatering systems become less efficient and alternative methods of dewatering should be considered. The most popular of these alternatives is Deepwell dewatering which is explained in detail on the following pages.

SPECIALIST SKILLS AND EQUIPMENT TO MEET ANY CHALLENGE

> DEEPWELL DEWATERING THE PRINCIPLES OF DEEP WELL DEWATERING

WHAT IS DEEP WELL DEWATERING?

When the water table needs to be lowered below 6 metres, or when conventional vertical Wellpointing in stages isn't feasible, Khansaheb Sykes can offer an economical Deep Well dewatering solution. A hole is bored from the surface level to a depth below that of the final excavation. A specially design well screen is then positioned into the hole and a submersible pump is then lowered into the well. Once the submersible pump is started the groundwater is lowered.

The Pumps that are used in deep well dewatering applications are often high efficiency, multistage, electro submersible units, with discharge heads of over 40 metres, this system can reduce groundwater levels for even the deepest of open excavations.

DEEPWELL INSTALLATION

Khansaheb Sykes offer a full installation service for deep well applications, our highly experienced engineers will visit your site and by using soil analysis will advise you on the best solution for your dewatering requirement.

We will advise on the depth of each well and also the quantity and positioning to ensure that the excavation remains dry through the project cycle. Once the system design has been approved our specialist drilling rigs will bore the holes in readiness for the well screen to be installed. The well screens are typically 200mm or 300mm in diameter and

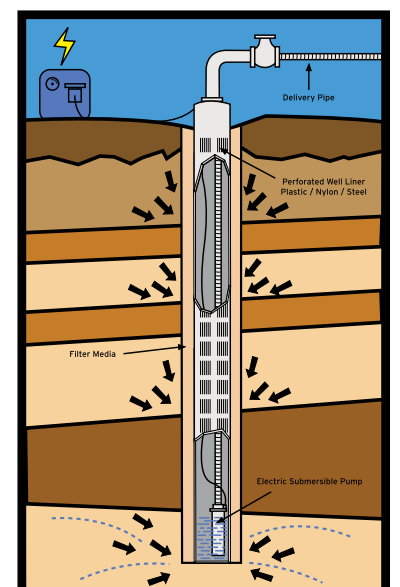
are joined together to provide the required length. The wells are often surrounded with additional filter media to aid drainage and prevent fines from entering the system. Once the well has been flushed it is ready to have the borehole installed.

The type and size of pump used will match each application. The pump is carefully lowered into the well where it is safely installed. Once again the depth at which the pump is installed will depend on the final depth of excavation, although the pump will always be installed away from the base of the well.

The electric cable that is fitted into the pump motor is taken up the well where it is connected to a power supply via one of our control panels. Each control panel is normally fed from a mains distribution unit, which is supplied from a mains supply or generator. Khansaheb Sykes can also provide the distribution unit generator, fuel tank and even provide a fuel management service throughout the project cycle.

Each pump discharge is connected to a common discharge main by means of individual flexible hoses, non-return and isolating valves. When the system is commissioned a Khansaheb Sykes technician will balance each well to ensure optimum performance.

Once the system is up and running our service continues, some of the larger sites will have a permanent Khansaheb Sykes Operator on site 24 / 7 to ensure that the system is well maintained and operating at peak efficiency. Others may prefer periodic visits. Either way our emergency service is available 24/7 to provide an instant response to any unforeseen problems.



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THE RESOURCES AND KNOWLEDGE TO RUN PROJECTS SMOOTHLY

> DEEPWELL DEWATERING

SINGLE STAGE DEWATERING TO GREATER DEPTHS

- Relatively maintenance free
- Ability to penetrate strata impervious to the jetting method of Wellpoint systems
- Installation of up to 40 metres deep or more in a single stage
- Capable of pumping high volumes of water from each well

BESPOKE SOLUTIONS

In addition to groundwater lowering for construction site excavations, Khansaheb Sykes are often called upon to devise many other types of deep well schemes for a variety of applications. Such application include the use of deep wells as bore holes where water abstracted from the water table is used for industrial or commercial requirements. We can also use wells to help drain water in low lying areas or areas where drainage is a problem.

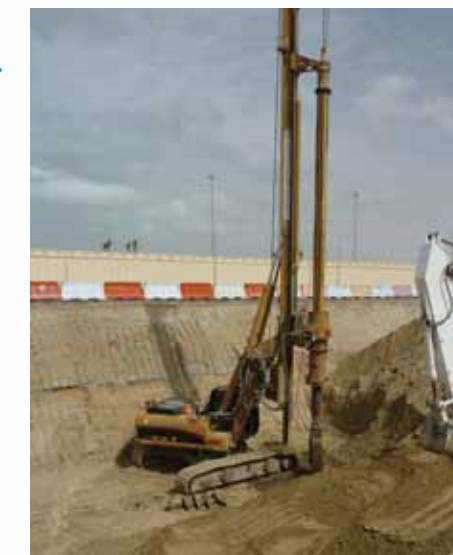
Whatever the application Khansaheb Sykes can provide the specialist skills and equipment for the installation of deep bored pumping wells. Enabling dewatering in a single stage to much greater depths or supplying water for industrial usage. Khansaheb Sykes extensive range of hire fleet pumps provides a competitive service for any application.



SPECIALIST SKILLS AND EQUIPMENT

The Khansaheb Sykes Deep Well dewatering system is recognised as a cost effective and efficient way for medium to long term dewatering of large projects where the excavation is greater than 6 metres or when Wellpoint dewatering is deemed inefficient. Our Deep Well dewatering system offers many advantages including:

- Cost effective dewatering
- Low noise
- Problem free pumping
- Easy to install
- Does not rely on vacuum systems, typically associated with Wellpoint dewatering



FAST SURVEYS
AND EXPERT
ADVICE FROM
EXPERIENCED
ENGINEERS

> WATER AND WASTE

MIDDLE EAST COVERAGE FROM THE PUMPING EXPERTS

level agreements, and help them operate as effectively as possible. We deliver on each of these counts through strategically placed depots and the advice of our experienced industry experts.

THE RIGHT CHOICES

At Khansaheb Sykes, we have pumping specialists with specific experience in the water utilities industry. You don't need to know what sort of pump you need - we'll advise, deliver and maintain the optimum solution. We offer measurable KPI's - real benefits to our clients that reflect our efficiency and commitment.

OUR RANGE OF EQUIPMENT

We have the right tools for the task. Our vast stock levels means that every type of pump imaginable is available at any one of our depots - and at short notice if necessary. From sewage pumps, through clean water to submersible and silenced pumps, we will deliver.

Our consultants know which solution is most appropriate. We'll install silenced pumps in public areas, or place explosion-proof submersibles in volatile places. Whatever your demands, you'll know that Khansaheb Sykes engineers have put together the right system for you.

ENVIRONMENTAL AWARENESS

At Khansaheb Sykes, we take our responsibilities seriously. We take the most environmentally-friendly route in any pumping system we implement - this means minimising pollution and adhering to strict noise control levels. What's more, we continually invest in cleaner, quieter, more efficient new equipment.

We offer fast surveys and advice from expert engineers with utilities experience, and we have proven expertise in addressing specific environmental issues, such as those demanded by municipality legislation.



LONG-TERM CONTRACTS

Khansaheb Sykes has the range, coverage and breadth of expertise to meet the demands of the water industry. As market leaders, we hold long term relationships with many of the local municipalities, for whom we devise and implement comprehensive pumping solutions.

ON CALL 24/7

Our clients demand the best in pumping solutions for a wide variety of applications whether planned or emergency, for clean water or sewage. They expect their supplier to be on call 24/7, to meet strict service

.....
**DEDICATED TO
 PROVIDING
 THE RIGHT
 ADVICE,
 EQUIPMENT
 AND SERVICES**

> MARINE AND OIL

SPECIALIST SOLUTIONS FOR DEMANDING APPLICATIONS

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SPECIALIST PRODUCTS

Our Pump range offers a large selection of special purpose pumps designed specifically for Oil, Gas, Marine and Petrochemical environments. Our extensive hire fleet includes diesel, electric and hydraulically driven pump sets. These units are provided with built in fuel tanks and are supplied with a wide range of accessories. Additional safety protection can be fitted to our pumps when used in hazardous or volatile environments.

FLOAT OUTS

When a new oil platform or structure needs to be transferred from shipyard to sea a specialist pumping solution is employed to ensure that the module is carefully ballasted. The units are then towed by barges into safe water where an equally delicate de-ballasting process is carried out.

For many years Sykes Pumps have been providing bespoke solutions for such applications, using a combination of surface mounted and submersible pumps to successfully complete some of the most challenging projects.

PROJECT MANAGEMENT

In addition to our comprehensive range of specialist high flow and high-pressure pumps we offer a full project management service. From advice on the initial scheme through to the installation and de-installation of our pumping equipment we provide a bespoke offering for a diverse range of applications. Our senior managers will attend site and offer advice based on their many years of experience, once the scheme is approved our engineers will install operate and service the pumps whilst the project is running.

Over the years our specialist team has successfully managed projects that have delivered major benefits for our clients worldwide who include offshore engineers, decommissioning companies, oil and gas companies and pipeline testing specialists.



EXPERIENCE AND KNOWLEDGE

Khansaheb Sykes has many years of experience in the Middle East and as part of Sykes Pumps can call upon a wealth of knowledge and capability that provides worldwide solutions to the Marine and Oil industries ranging from short term maintenance application through to major off shore projects.

SPECIALIST APPLICATIONS

We offer a wide range of pumping solutions to tackle a wide and diverse range of applications, these include High volume filling and ballasting, Pipeline flushing, Pressure testing, Chemical flushing, Dewatering, Tank filling and Specialist float out projects.





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