



# naval base & defence facilities



**ROYAL HASKONING**

thinking in  
all dimensions

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*Clockwise from above: Western Jetties at HM Naval Base Portsmouth UK, with historic No1 Basin and, (see front cover), HMS Victory in the background; Marchwood Military Port UK; Shiplift RDM Yard, Rotterdam, The Netherlands*

## from breakwaters to living quarters

The creation of defence facilities demands a specialist knowledge of safety and security requirements. Royal Haskoning, through Posford Haskoning Ltd., and Haskoning Nederland B.V., has acquired extensive experience in this field over decades of work with defence organisations.

Diverse issues are considered, from safety standards for the storage of explosives, to the best ways of safeguarding the security of information. Our expertise in solving these and providing engineering solutions has enabled us to take an integrated approach to the many defence projects we have completed.

### naval bases

Royal Haskoning, in a joint venture with an Australian consultant, was responsible for the full planning, design and supervision of construction works for a greenfield naval base on the west coast of India, the largest of its kind in South Asia. In the Middle East we planned and designed a major naval base with breakwaters, 6km of berths, shiplift and ship repair facilities, workshops, ammunition store, fuel storage, training and living quarters. A second project for the same client was designed to accommodate naval and commercial craft.



Clockwise from above: Repair and maintenance shipyard for the Royal Dutch Navy in Den Helder, The Netherlands; Rijkswerf Submarine Drydock, The Netherlands; Portsmouth Western Jetties, UK

## facilities for sea, air & land forces

In Ghana we carried out the design of the new Second Naval Base including a shipyard with slipway, graving dock, all onshore buildings and barracks. In the Netherlands we designed and supervised the construction of Ministry of Defence repair yard at the new Den Helder naval base. This comprised the layout design of waterfront structures including quays, a jetty and a shiplift complex. We also designed a covered ship repair shop, an engine shop, an engine testing shop and other workshops, as well as infrastructure such as roads, pipe and cable tracks. For the UK Government, we were awarded the Term Commissions for the Defence Estate Agencies including

structural appraisal within a naval base of jetties, dry docks and sea locks. We investigated naval facilities for the Trident missile programme and nuclear submarines in Scotland.

### away from the water's edge

Onshore projects include hardened shelters, aircraft service facilities and an armour rebuild facility for a Middle Eastern country's armed forces. Our portfolio also includes facilities that support the main defence activities, such as living quarters and training schools, created with the same attention to safety and security issues.

Royal Haskoning is an independent, worldwide operating consultancy that has its origins in a firm established in 1881 in the Netherlands. The consultancy now has a staff of 3,000 who together combine a wide range of knowledge and experience. Rooted in a technical background, our consultancy services focus on the broad field of the interaction between people and their environment, in the fields of spatial development, infrastructure & transport, architecture & building, mechanical & electrical services, environment, water, coastal & rivers and maritime.

We are committed to working enthusiastically with our clients to achieve sustainable solutions in an increasingly complex society. The expertise and experience of our professionals in a variety of disciplines allow us to

consider all technical, logistical, architectural, legal, organisational, social, environmental and economic aspects of your project, in order to develop sustainable and practical solutions. Royal Haskoning has subsidiaries and partners throughout the world.

Posford Haskoning is the UK branch of Royal Haskoning. Through our branch and project offices in Europe and overseas, we have access to all major international markets. This way, Royal Haskoning offers multidisciplinary and integrated services locally, based on experience built globally. With our personal service in consultancy, we contribute effectively to the successful planning, design, implementation, commissioning and operation of your projects and programmes and enhance our clients' work with added value.



Royal Haskoning, through Posford Haskoning Ltd and Haskoning Nederland B.V. is a member of:

- ACE The Association of Consulting Engineers
- BCCB British Consultants & Construction Bureau
- PIANC International Navigation Association
- ICHCA International Cargo Handling Co-ordination Association
- CIRIA Construction Industry Research Information Association British Section
- ICID International Commission on Irrigation and Drainage
- IEMA Institute of Environmental and Management Assessment
- FIDIC International Federation of Consulting Engineers

Royal Haskoning through Posford Haskoning Ltd or Haskoning Nederland B.V. is registered with: African Development Bank, Asian Development Bank, Caribbean Development Bank, European Bank for Reconstruction and Development, European Development Fund, International Development Bank, Islamic Development Bank, Kuwait Fund for Arab Economic Development, Overseas Development Administration, United Nations Development Programme World Bank, and many other Funds and National Authorities.

# thinking in all dimensions

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