

+ ADDED VALUE TRAINING



As one of the world's leading manufacturers of rolling bearings, linear technology components and steering systems, we can be found on almost every continent – with production facilities, sales offices and technology centres – because our customers appreciate short decision-making channels, prompt deliveries and local service.



The NSK company

NSK commenced operations as the first Japanese manufacturer of rolling bearings back in 1916. Ever since, we have been continuously expanding and improving not only our product portfolio but also our range of services for various industrial sectors. In this context, we develop technologies in the fields of rolling bearings, linear systems, components for the automotive industry and mechatronic systems. Our research and production facilities in Europe, Americas and Asia are linked together in a global technology

network. Here we concentrate not only on the development of new technologies, but also on the continuous optimisation of quality – at every process stage.

Among other things, our research activities include product design, simulation applications using a variety of analytical systems and the development of different steels and lubricants for rolling bearings.

Partnership based on trust – and trust based on quality

Total Quality by NSK: The synergies of our global network of NSK Technology Centres. Just one example of how we meet our requirements for high quality.

NSK is one of the leading companies with a long tradition in patent applications for machine parts. In our worldwide research centres, we not only concentrate on the development of new technologies, but also on the continual

improvement of quality based on the integrated technology platform of tribology, material technology, analysis and mechatronics.

More about NSK at www.nskeurope.com or call us on +44 (0)1636 605123



Tailor-made Training





NSK offers a wide range of training and technical seminars. These are tailored to meet your individual needs and we work together with you initially, to agree both the duration and content of the sessions, ensuring that participants obtain the maximum benefit from their attendance. Training material is professionally prepared with high quality information and these training sessions and technical seminars represent a real opportunity for all participants to enhance and improve their existing knowledge and practical skills relative to bearings and bearings related subjects.

Our Trainers

All of our Trainers are experienced NSK application engineers, and possess a very high degree of technical knowledge combined with significant field experience meaning that they are familiar with many typical and often recurring, industry specific requirements.

Location

These training sessions and seminars can be conducted in any one of NSK's facilities. We have three dedicated training centres in Europe: in France (Paris), Poland (Kielce) and the United Kingdom (Newark). These training centres, dedicated mainly to practical training like bearing fitting and removal, are available to all our European customers on request. Alternatively, all of our training sessions and seminars can be held on your own premises if this is more convenient. In order to satisfy both theoretical and practical matters, every NSK training centre is equipped with mobile training equipment allowing us to train people remotely as if they were in one of our dedicated training centres – bringing the expertise to you!



Training Menu

As a global manufacturer, NSK has extensive knowledge and experience of many key industry sectors. We therefore offer the benefit of our knowledge in the form of industry sector specific training courses. In these courses we cover the key issues affecting the sector, along with common requirements encountered as a result of the working environment and we offer helpful advice on the best solutions available to provide common industry related bearing solutions.

They are available in the following sectors (non exhaustive list):

- › Electric Motors
- › Food & Beverage
- › Gearboxes
- › Machine Tool
- › Petrochemical
- › Pulp & Paper
- › Pumps & Compressors
- › Quarry, Mining & Construction
- › Rail
- › Steel & Metals

Who should attend

- › Distributors
- › Maintenance Repair and Overhaul Industries
- › Original Equipment
- › Manufacturers
- › Process Industries
- › Engineers
- › Maintenance Personnel
- › Stores Personnel
- › Students



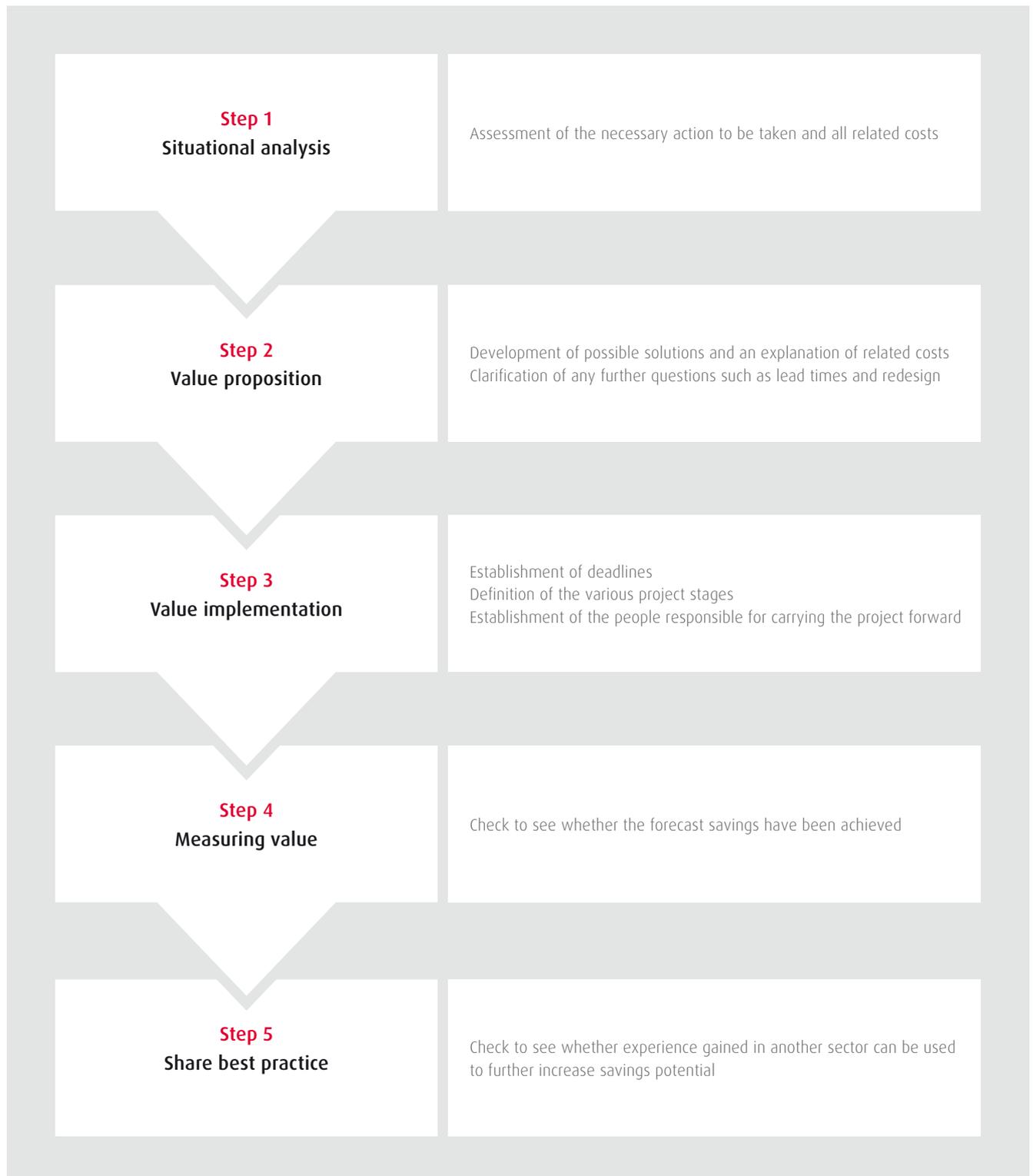
Our training sessions and seminars are appropriate for a wide variety of job functions, including both new and experienced engineers and maintenance personnel as well as project and design engineers, reliability or improvement engineers. There are even courses available for people involved in the handling and storage of bearings – something for everyone. To discuss the best course or seminar for your needs simply contact your local NSK representative.



Our extensive menu covers the following subject matters:

<p>Introduction to Bearing technology (Basic)</p>	<ul style="list-style-type: none"> › Bearing description › Terminology › Different types of bearing, part numbering, their typical applications
<p>Introduction to Bearing technology (Advanced)</p>	<ul style="list-style-type: none"> › Basic Bearing Technology + › Insight into design and features of bearings › Effects on performance for various options › Bearing selection › Internal clearance › Fits for shafts and housing › Life calculation
<p>Best Practice Fitting and Removal</p>	<ul style="list-style-type: none"> › Fits for shafts and housings, how to fit and remove common bearing types using workshop and specialist fitting tools › A more advanced module is also available, however this can only be conducted in one of our 3 European NSK Training Centres
<p>Bearing Diagnostics</p>	<ul style="list-style-type: none"> › Understanding of bearing failure analysis and how to spot common failure modes
<p>Application of Bearings</p>	<ul style="list-style-type: none"> › Introduction to considerations when selecting and applying bearings into machinery
<p>Sector Specific</p>	

Getting to the heart of service: the AIP Value Cycle





To be the manufacturer and distributor of good products is not enough nowadays; we believe that being an active partner with a broad spectrum of services to support our clients is more important. Our highly experienced staff are on the ground and ready to work with you directly to find individual solutions for smooth, efficient and profitable production processes in your company.

Increased profitability thanks to AIP

Less machine and plant downtime. Cost reduction without affecting quality. With AIP, a well-proven asset improvement programme, we help you to recognise, and act on, profitability potential. The programme combines existing knowledge in your field of competence and your corporate processes with the latest NSK technical knowledge.

Starting with a situational analysis, we compile a structured catalogue of measures together with you and assist you with its implementation. A Measuring Value check ensures that you achieve the sought-after advantages inside the agreed time frame.

Additionally, we offer training courses, carry out specialised service and repair services in our NSK Service Centres, and continually expand our online applications on our secure client site.



NSK Service Spectrum

Technical Support	Training Courses	Analytical Services	Value Added Services
Application Reviews	Introduction to Bearing Technology (Parts 1 & 2)	Failure Mode Analysis	NSK Cost Down Approach
Engineering Support	Best Practice Fitting & Removal of Bearings (Sections 1 & 2)	Material Analysis	Maintenance Schedules
Machine Design Consultancy	Bearing Diagnostics	OEM Part Conversion	Site Surveys
Bearing Surveys	Application of Bearings	Standardisation & Rationalisation	Maintenance Tool Audits
Diagnostic & Vibration Analysis	Sector Specific		Super Precision Service Package
	Food & Beverage Pumps & Compressors Quarry, Mining & Construction	Paper, Metals & Steel Machine Tool, Railway	

European NSK Sales Offices

UK

NSK UK Ltd.
Northern Road, Newark
Nottinghamshire NG24 2JF
Tel. +44 (0) 1636 605123
Fax +44 (0) 1636 643276
info-uk@nsk.com

France

NSK France S.A.S.
Quartier de l'Europe
2, rue Georges Guynemer
78283 Guyancourt Cedex
Tel. +33 (0) 1 30573939
Fax +33 (0) 1 30570001
info-fr@nsk.com

Germany

NSK Deutschland GmbH
Harkortstraße 15
40880 Ratingen
Tel. +49 (0) 2102 4810
Fax +49 (0) 2102 4812290
info-de@nsk.com

Italy

NSK Italia S.p.A.
Via Garibaldi, 215 - C.P. 103
20024 Garbagnate
Milanese (MI)
Tel. +39 02 995 191
Fax +39 02 990 25 778
info-it@nsk.com

Norway

Nordic Sales Office

NSK Europe Norwegian Branch NUF
Østre Kullerød 5
N-3241 Sandefjord
Tel. +47 33 293160
Fax +47 33 429002
info-n@nsk.com

Poland & CEE

NSK Polska Sp. z o.o.
Warsaw Branch
Ul. Migdałowa 4/73
02-796 Warszawa
Tel. +48 22 645 15 25
Fax +48 22 645 15 29
info-pl@nsk.com

South Africa

NSK South Africa (Pty) Ltd.
27 Galaxy Avenue
Linbro Business Park
Sandton 2146
Tel. +27 (011) 458 3600
Fax +27 (011) 458 3608
nsk-sa@nsk.com

Spain

NSK Spain, S.A.
C/ Tarragona, 161 Cuerpo Bajo
2ª Planta, 08014 Barcelona
Tel. +34 93 2892763
Fax +34 93 4335776
info-es@nsk.com

Sweden

NSK Sweden Office
Karolinen Företagscenter
Växnäsgratan 10
SE-65340 Karlstad
Tel. +46 5410 3545
Fax +46 5410 3544
info-de@nsk.com

Turkey

NSK Rulmanları Orta Doğu Tic. Ltd. Şti
19 Mayıs Mah. Atatürk Cad.
Ulya Engin İş Merkezi No: 68 Kat. 6
P.K.: 34734 - Kozyatağı - İstanbul
Tel. +90 216 3550398
Fax +90 216 3550399
turkey@nsk.com

Please also visit our website: www.nskeurope.com
Global NSK: www.nsk.com

