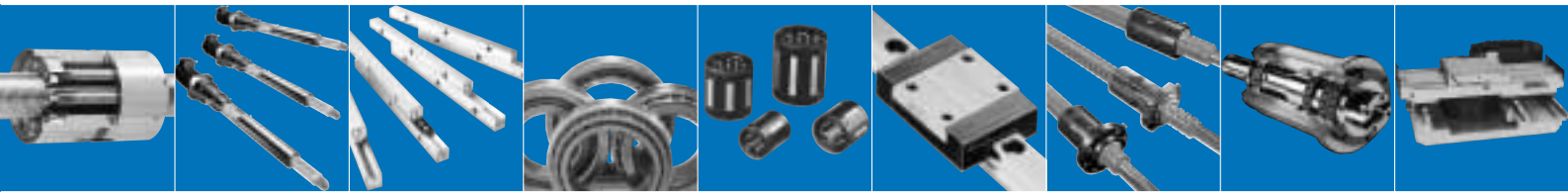
SKF

SKF Linear Motion & Precision Technologies in Factory Automation





Factory Automation



Competitiveness in Factory Automation means permanent productivity improvements at all operation levels.

Industry demands :

Durability
Reliability
Precision
Speed
Compactness
Modularity
Conformity to ISO 14001

On top of these essentials, SKF offers :

A single-source supply
In our offer, you will find everything from the smallest components up to more complex, tailormade systems : One-stop-shopping saves both time and money.

A customer-oriented company
Our sales and product engineers keep intensive contacts with customers. Only by listening closely to customers it is possible to gain a thorough understanding of the demands and offer the overall best solution.

Worldwide sales network
Founded in 1907, SKF is operating in 130 countries. The company has some 45.000 employees and more than 80 manufacturing facilities throughout the world. Its international network is supported by nearly 20.000 distributors and retailers.
SKF Linear Motion & Precision Technologies is an organisation within SKF which, as the name suggests, is dedicated to the manufacture, sales and service of linear motion products, high precision bearings and spindles. It serves the market through its organisation of 10 specialized sales companies located in Europe and North America. In addition to the services provided by these sales companies, product and application support is available world-wide through the SKF international network.

Off- and on-line documentation
Complete documentation is available to provide you with full details on products and their performance. This may be obtained by either contacting a local SKF office, or alternatively refering to our web site, **www.linearmotion.skf.com**, where one will find information on our organisation, range of products and detailed drawings, as well as the option to contact us via e-mail for any further information.

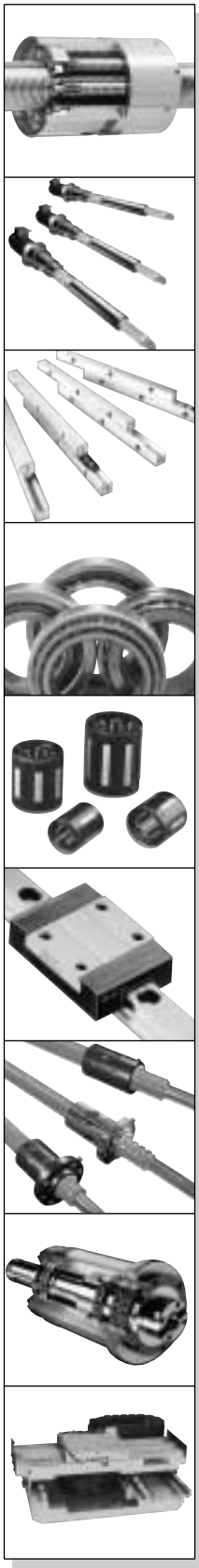
SKF Linear Motion & Precision Technologies provides solutions which help make you competitive in your market.

SKF

SKF in Factory Automation

You expect from us

- Durability
- Reliability
- Precision
- Speed
- Compactness
- Modularity
- Environmentally friendly (conformance to ISO 14001)
- Efficiency



SKF solutions deliver

- consistency of performance
- up-time
- low maintenance costs

- increased output
- improved work flow
- repeatability
- quality

- easy installation & operation
- weight savings
- space savings

- clean operation
- low noise
- corrosion resistance
- low power consumption

Getting the right product for the application is not always easy. SKF application engineers are available to find the best solution to fit your needs.

Durability / Reliability

Ever shortening production cycles and increasing demands for quality and flexibility are the driving forces behind all developments in factory automation. This means that components are taxed to their fullest. Shock loads, high speeds and accelerations are par for the course. Zero defect production calls for ultimate durability and reliability. SKF products live up to these challenges.



SKF High Performance Actuators provide the stiffness, efficiency and long service life required in Neos Tricept industrial robots.

SKF Roller Screws are a classic example. In applications such as punches, presses, injection moulding, riveting and welding robots, just to name a few, roller screw technology has proven itself time and again. The high power density and rugged design of roller screws deliver uncompromised service life, well beyond that of similar sized, or even larger, ball screws. The result: low maintenance and consistent and reliable performance, even under the harshest operating conditions.



In applications such as assembly presses, **SKF Roller Screws** offer a compact solution providing reliable operation under high loads and duty cycles.

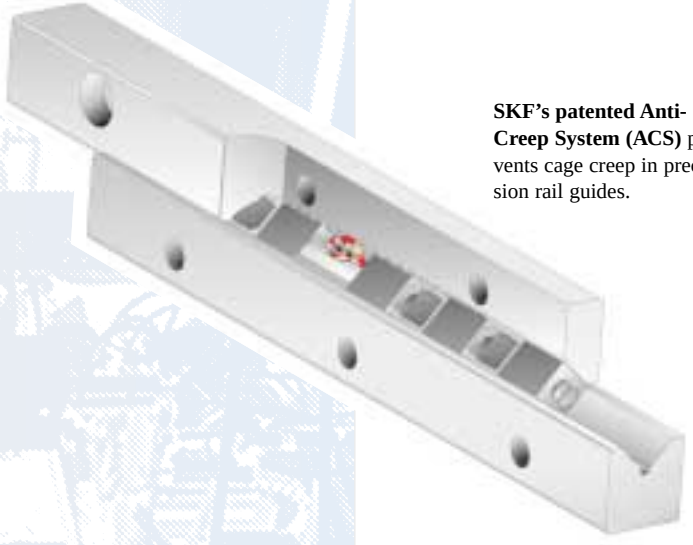
Precision / Speed

In the production, assembly and quality control of electronic chips, where every micron counts, there can be no compromise on precision. SKF's experience in this field of precision movement is extensive, whether it be in the form of standard components such as precision rail guides, or tailor-made, multi-axis linear motor driven systems which can quickly position objects within microns.

As the saying goes "time is money". As users strive to reduce throughput time, machines must not only work more precisely, but also faster . In applications using precision rail guides higher speeds and accelerations can often lead to the problem of cage creep: when the cage and its rolling elements slip in their position relative to the rails, which can eventually lead to early failure of the system. SKF's precision rails incorporating the patented "ACS" (Anticreep System) eliminate this problem, ensuring precise and reliable operation, even in the presence of high accelerations.

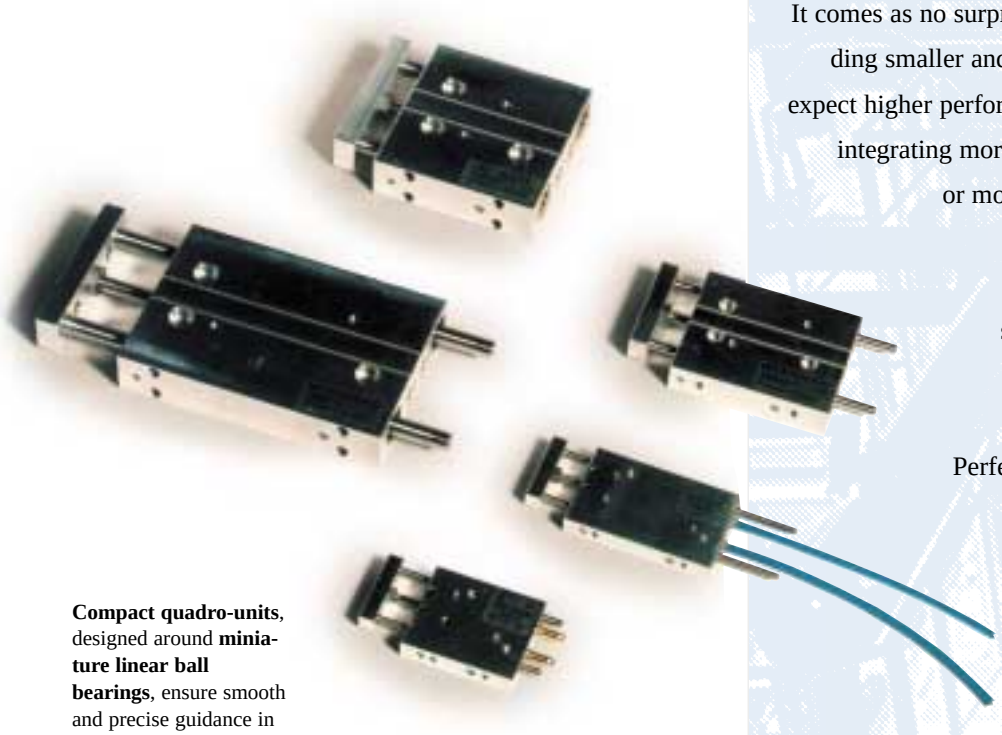


Electronic chip manufacture: an **SKF multi-axis linear motor positioning system** quickly and accurately positions the monting head in Datacon diebonders.



SKF's patented Anti-Creep System (ACS) prevents cage creep in precision rail guides.

Compactness / Modularity



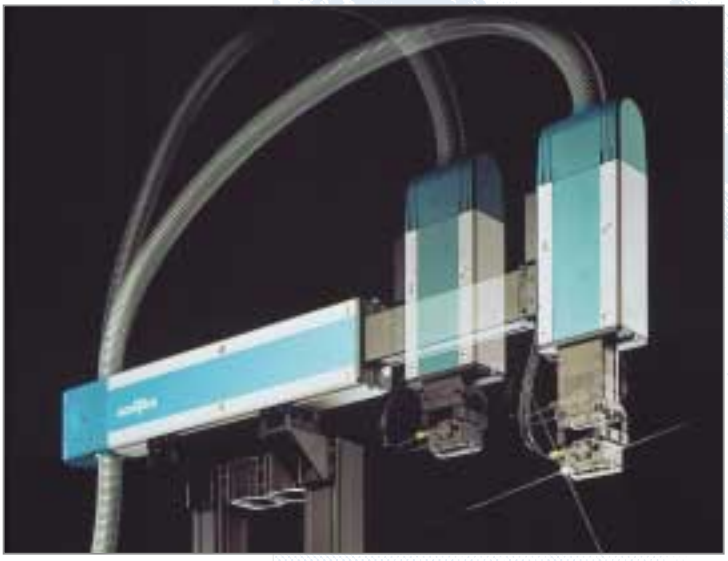
Compact quadro-units, designed around **miniature linear ball bearings**, ensure smooth and precise guidance in pneumatic handling.

It comes as no surprise that while users are demanding smaller and smaller components, they also expect higher performance and more functions. By integrating more functions into one component or module users benefit from simpler designs and interchangeability as well as space and weight savings which will also facilitate increases in speed.

Perfect examples of this concept are the integration of precision rail guides into gripper parts, or small pneumatic slides built around miniature linear ball bearings.

SKF offers a range of miniature ball screws, slides, linear ball bearings, precision and profile rails; the perfect building blocks for compact solutions.

The integration of the grippers and **Precision Guides**, provides a compact and lightweight solution for material handling.



Environment / Efficiency

Along with shorter cycle times and higher quality and flexibility, industry is demanding more and more environmentally friendly solutions. An evident trend is the move away from hydraulics towards electro-mechanics. Electro-mechanic drives based on components such as ball or roller screws, or linear motors, provide clean and efficient alternatives to hydraulics, avoiding the risk of oil leakage, and problems associated with the handling and disposal of oil.

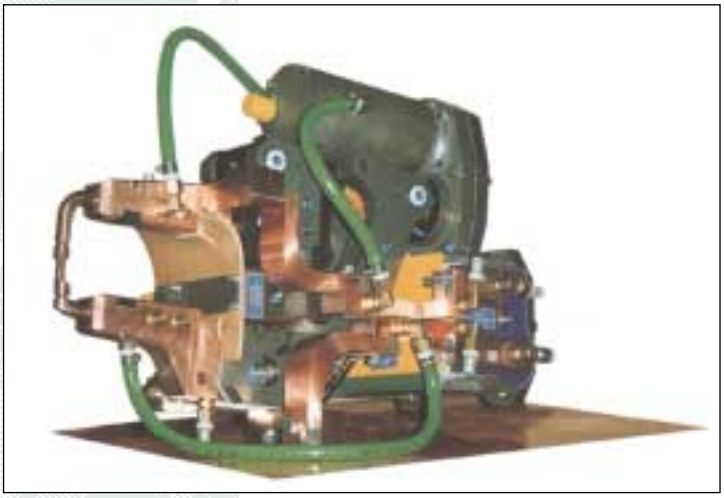


Building fire protection and ventilation system manufacturer Colt International Ltd use **SKF's Electro-mechanical Actuators** to provide reliable fail safe fire, smoke and day to day ventilation needs to hundreds of building environments worldwide.

On top of the environmental advantages, electro-mechanical drives can offer cost savings over hydraulics, in particular when only one linear drive is required as there is no need to invest in the basic hydraulic infrastructure (pump, oil tank, filter, valves).
Furthermore, in cases where more drives are to be in operation, the network of hydraulic tubes and pipes may be replaced with inexpensive electrical cables.

Additional benefits may be realised in the form of reduced power consumption. This reduction arises firstly from the efficiency of electro-mechanical drives, but also the fact that they need only draw power "on demand" i.e. there is no need to keep constant pressure in the system as in the case with pneumatics and hydraulics.

The noise level of machinery is also a critical issue, the regulations on noise levels in the workplace increasing in line with automation.
Engineers take this requirement into account when designing and specifying machinery and equipment, and SKF strives to design the quietest solutions, whether it be in the fine tuning of the internal geometry of components such as linear ball bearings, the specification of the quietest motor for linear actuators, or the design and testing of more complex integrated systems.



SKF Roller Screws replace pneumatics and hydraulics in the actuation of an MFG spot welding gun. The result, a highly reliable solution offering precise control of the position and load, and lower noise levels.

SKF®

Austria
Linear Motion
SKF Österreich AG
Phone : +43 22 36 6709-0
Fax : +43 22 36 6709-270

Benelux
SKF Multitec Benelux B.V.
Phone : +31 030 6029029
Fax : +31 030 6029028
Sales Office Belgium/Luxembourg
Phone : +32 2 5024270
Fax : +32 2 5027336
E-mail : multitec_benelux@skf.com

France
SKF Equipements
Phone : +33 1 30 64 28 28
Fax : +33 1 30 64 41 31

Germany
SKF Linearsysteme GmbH
Phone : +49 9721 657-0
Fax : +49 9721 657-111
E-mail : lin.sales@skf.com
http://www.linearsysteme.skf.de

Italy
SKF Multitec S.p.A.
Phone : +39 011 57 17 61
Fax : +39 011 57 17 633

Nordic area
SKF Multitec Sweden
Phone : +46 42 25 35 00
Fax : +46 42 25 35 45/46
Sales Office Norway
Phone : +47 22 30 71 70
Fax : +47 22 30 28 14
Sales Office Denmark
Phone : +45 65 92 77 77
Fax : +45 65 92 74 77
Sales Office Finland
Phone : +358 94 52 97 52
Fax : +358 94 12 77 65
http://www.linearmotion.skf.se

Spain
SKF Productos Industriales S.A.
Phone : +34 93 377 99 77
+34 93 377 99 07
Fax : +34 93 474 2039 / 3156 / 2156
E-mail : skfpisa@teleline.es

Switzerland
Linear Motion
& Precision Technologies
Phone : +41 01 825 81 81
+41 01 825 82 82
E-mail : skf.schweiz@skf.com

United Kingdom
SKF Engineering Products Ltd.
Phone : +44 01582 490049
Fax : +44 01582 496574

USA
SKF Motion Technologies
Phone : +1 610 861-4800
Toll free: +1 800 541-3624
Fax : +1 610 861-4811

Product availability and application support is also provided by the SKF Bearing network. To get other SKF addresses or telephone numbers do not hesitate to contact one of the above offices or send us an e-mail using the address below.

www.linearmotion.skf.com

e-mail: motion.technologies@skf.com