Machine Solutions Services

Catalogue 2013
How can you develop your business?
Gain the competitive advantage in each stage of your machine

In order to increase customer satisfaction, sales and profitability you must achieve excellence in each stage of your machine’s life cycle.

Our unparalleled know-how in machine automation minimizes your global machine costs. We supply complete automation solutions for general motion control, robotic as well as specific applications such as packaging, HVAC & R, material handling, pumping and hoisting.

From design to commissioning to maintenance, our global team of experts versed in virtually all industries and applications helps you with customization, projects, services and training...

Achieve more with less at each stage, MachineStruxure™ keeps you one step ahead

Connect with the experts
www.oem.schneider-electric.com
We have resources to help you succeed...
> 130 Application Design Experts worldwide
> 4 Flex-Centers: one in Germany covering Europe, one in North America, one in China and one in Brazil
Machine Solutions Services

General presentation
- Increase your efficiency and competitiveness with our services and support .......... 4 and 5

Design, Improve
- Consulting ................................................................. 6
- Project and program management .................................. 7
- Software engineering .................................................. 8
- Customized products .................................................... 9
- Field service for analysis / consulting .......................... 10
- Training ................................................................. 11

Build
- Motor and gearbox combination .................................. 12
- Robotic and Linear motion .......................................... 13
- Engineered solutions ................................................ 14
- Order process .......................................................... 15
- Sales express service ................................................... 16

Operate
- On site service and support ......................................... 17
- Field service for machine failure ................................ 18
- Repair and check service ........................................... 19
- Repair express service ............................................... 20
- Customer International Support ................................. 21
Increase your efficiency and competitiveness with our services and support

Design

Let’s find the right solution for you
- Application Design Experts (ADEs), Solution and Architecture Experts (SAEs) are never far away. They understand your needs and can propose innovative technical solutions including:
  - Advice
  - Co-engineering services
  - Test and validation of the feasibility

Rely on our consulting services
- We understand your pain points and can propose the solutions to solve them
- Audits

We execute the solution
- Our solution design and delivery centers (Flex-Centers) are committed to quality results and schedules:
  - Project and program management
  - Software and hardware engineering
  - Test, validate and commission the solution

Improve your team’s competencies
- In-class training
- On-site training

Build

We deliver the solution
- Availability of components
  - Large worldwide network of distributors
- Delivery through local partners
  - Collaboration and management of partners
- Schneider Electric as your solution provider
  - Project management and responsibility
  - Engineered solutions
  - Third-party components (suppliers)

We improve services and support on your site
- Secondment of qualified personnel to deliver on-site engineering and technical services

We improve your service team’s competencies
- Service and commissioning training

With MachineStruxure, make your machines stand out right from the start
General presentation

Machine Solutions Services

Operate

Provide services and support to you and your customers
- Maintenance contracts
- Spare parts
- Repairs
- Standard and express deliveries
- Return of goods
- Service expertise
  - Preventive maintenance
- Contract extension
- Customer International Support (CIS) as contact point
  - Find the closest expert to solve your technical issue

Improve your customer’s competencies
- In-class customer training
- On-site training
- Service and commissioning training

Improve

Improve your machine range
- Consulting

Improve the machine in the production line
- Audit
- Services and Expertises
  - Contract extension
  - Upgrading
  - Migration
  - Training

With MachineStruxure, benefit from a worldwide assistance and after-sales support
Design, Improve

Consulting

Your challenges

You are looking for a competent partner who can offer consulting services for industrial automation. Benefit from our long experience in the industry and let our technical experts give you a quick overview of your system architecture that will help you identify and eliminate weaknesses. Our expertise areas include optimization, retrofitting, and development.

What do we offer?

> Optimization
  > Definition and clarification of your needs
  > Definition of communication methods and steps to achieve your goals
  > Analysis of your existing system architecture
  > Presentation of improved opportunities to reach your goals
  > Increase the reliability and performance of the control and motion system
  > Increase the flexibility of the system and production rate
  > Transparent description of estimated cost, time and technical data for the optimization

> Retrofitting
  > Analysis of existing components
  > Analysis of performance improvements and weaknesses
  > Machine optimization
  > Replacement of obsolete or old components
  > Transparent description of estimated cost, time and technical data for component renewal

> New development
  > See services for customized products and engineered solutions (see on page 9)

Contact us:

> by your Sales organisation
> or directly
> european-flex-center@schneider-electric.com

Benefits

> Linking competencies
> Support throughout the whole project
> Time savings in solutions finding
> Optimal, professional results
Your challenges

You are looking for a competent partner to take over program and project management, monitoring, control, and successful execution of the project, all while keeping customer expectation on costs, time, scope and project quality on track.

What do we offer?

> Planning
  > Planning and definition of project scope
  > Activity planning and sequencing
  > Roadmap development
  > Scheduling
  > Resource planning
  > Budgeting and cost planning

> Analysis, documentation and specification
  > Evaluation and documentation
  > Risk analysis
  > Monitoring and reporting

> Project management
  > Managing risks and issues
  > Management of the project team
  > Working with vendors
  > Cooperating with suppliers
  > Commissioning
  > Change management throughout the whole project

Contact us:

- by your Sales organisation or directly
- european-flex-center@schneider-electric.com

Benefits

> Taking responsibility for your project
> Motion application specialists
> Field-tested processes
> Know-how transfer
> Fast risk management by skilled project managers
> Everything from one source
> Time savings in project execution thanks to experienced project managers
> Transparency of the entire project
> Leadership ability of the project managers
Design, Improve

Software engineering

Your challenges

You are looking for a competent software engineering partner for design, development, testing and commissioning of application software for particular machines or equipment.

What do we offer?

- Requirements for the application software
  - Needs analysis
  - Specification
  - Optimization

- Application software design
  - Architecture
  - Bill of materials
  - Interfaces with other components

- In-house realization of the application software
  - Development
  - Verification
  - Test
  - Validation
  - Commissioning

- Software engineering management
  - Coordination
  - Control
  - Monitoring
  - Software application reporting
  - Change management
  - Training on new software

Contact us:

- by your Sales organisation or directly
- european-flex-center@schneider-electric.com

Benefits

- Additional resources for programming
- Implementation in co-operation with you
- Programming by professionals
- Know-how transfer
- Tested and field-proven software structures
- Specified machines
Your challenges

You are looking for a partner who can adapt a product from the MachineStruxure portfolio to your wishes, or create a specific functionality so that it meets your particular requirements.

What do we offer?

> On motors we can adapt:
  > Shafts
  > Flanges
  > Pinions
  > Connectors
  > Cables
  > Winding variants
  > Gearboxes
  > Housing
  > Encoder

> On integrated drives we can adapt:
  > Shafts
  > Flanges
  > Pinions
  > Connectors
  > Cables
  > Winding variables
  > Software
  > Hardware
  > Encoders

> On drives and controllers we can adapt:
  > Software
  > Firmware
  > Hardware (depending on product range)

> On robots we can propose mechanical and application library adaptations

> On Linear motion we can propose any mechanical adaptation

> On software we can adapt:
  > Libraries
  > Function Blocks

> On process steps we can adapt:
  > Specification
  > Development
  > Test
  > Validation
  > Certification

Contact us:

> by your Sales organisation
or directly
> motion-adaptations@schneider-electric.com
> european-flex-center@schneider-electric.com
> linear-motion@schneider-electric.com
> robotic.aut@schneider-electric.com

Benefits

> Development exclusively for you
> Products tailored to your machine
> Save time by quickly finding solutions
> Proven Schneider Electric quality
> After development you can order the product any time
Your challenges

You need a competent partner who has the know-how to offer on-site support on optimization / debugging your automation and motion control panels - a partner who can help you select the optimal automation components for your machines, advise you on how to use them, and assist in defining a spare parts stock.

The investigation is carried out by trained experts with special measuring devices.

What do we offer?

**Investigation**
- Analysis of actual system status
- Grounding and shielding - analysis
- Power quality analysis
- Voltage and interference analysis
- Thermography measurement
- Shock and vibration measurement
- Electrostatic discharge analysis
- Field bus analysis (PROFIBUS, sercos, CANopen)
- Effectiveness analysis of the optimizations

**Consulting**
- Detection of all relevant PacDrive components
- Proposal of individual spare part kit
- Control cabinet design (cable management, grounding concepts)
- Consultation on modernisation possibilities
- Introduction to configuration and management of components
- Suggestions for training

**Documentation**
- Creation of detailed documentation of measurement data

Benefits

- Avoid machine downtime
- Increase machine availability
- Immediate availability of spare parts on-site
- Know-how transfer
- Identification of improvement opportunities

Contact us:
- by your Sales organisation
- or directly
- automation.support.de@schneider-electric.com
Your challenges

You are looking for a competent partner able to develop your skills. We offer standard or customized trainings on Schneider Electric products and solutions. We guarantee you the acquisition of new skills. Our qualified trainers, technical and teaching experts can perform training in-class either in training centers or in your premises. Moreover we make on-line learning modules available, so learn at any time you wish. Our standard trainings are available in your home country and in your mother tongue.

What do we offer?

> Performance offer training for
  > Basic / advanced motion
  > SoMachine Software
  > Flexible Machine Control and TVDA offer with SoMachine software as solution software
  > Hoisting applications
  > Packaging applications
  > HVAC & Refrigeration applications

> High-performance offer training for
  > PacDrive programming
  > Advanced PacDrive programming
  > Migration PacDrive 3
  > Robotic applications
  > Commissioning
  > Service and maintenance for PacDrive
  > Safe machines
  > Safe machines with integrated safety for PacDrive 3

> On site / customized training

> Training systems
  > Training Test Rig PacDrive 3
  > Training Test Rig PacDrive M iSH
  > Training Test Rig Safety
  > GroupFlyRot Test Rig

Contact us:

> by your Sales organisation
  or directly
> michaela.kaufmann@schneider-electric.com
You need a competent partner who can offer you a mounted motor and gearbox combination - a partner who has the ability to define the optimal motor choice along with the best adapted gearbox to suit your customers’ needs. Once the motor and gearbox combination is defined, our specialists will check the feasibility and we will make a proposal for a ready-to-use solution with only one reference number.

What do we offer?

- **Combination**
  - iSH servo modules and any referenced gearbox
  - ILM62 integrated servo drives and any referenced gearbox
  - SH3 servo motors and any referenced gearbox
  - Other Schneider Electric motors on request

- **Services**
  - Optimal choice of motor and gearbox
  - Feasibility check of the combination
  - Professional assembly
  - All necessary mounting accessories are selected by experts and pre-arranged
  - Easy to order with only one reference number
  - Schneider Electric assumes full warranty
  - Combinations are tested, validated and documented
  - Combinations are always available again under the reference number

- **Customized solutions**
  - Choice of motor material (stainless steel version)
  - Special varnishing

Contact us:

- by your Sales organisation
- or directly
- european-flex-center@schneider-electric.com

Benefits

- Everything from one source
- Schneider Electric: a full warranty for combination
- Feasibility check after inquiry
- Customized solutions possible
- Only one reference number for the motor and gearbox combination
- Faster response time thanks to one order number
- Pre-assembled and ready to use
**Build**

**Robotic and Linear motion**

**Your challenges**
You need a competent partner who can offer you the best robotics solution including linear motion to meet your requirements.
- You need to size and select the right mechanical solution for linear movements or robots.
- You need to design, evaluate, simulate and optimize the system performance.
- You need to offer a customized hardware or software solution that fits dimensions and other requirements of your customer’s machine.

**What do we offer?**
- Delta robots and Linear motion axis and portal
  - Standard
  - Customized on request
- Consulting
  - Right mechanical solution and design
  - Simulation and evaluation of performance/throughput of the machine
  - Tools and documents for quick shots performance tests within our lab
  - New software libraries or applications
  - Ideas and CAD-samples
  - Calculation of motorization for the required movement in linear motion
  - Consulting at customer’s site for performance optimization
- Offer management
  - Calculation and dimensioning of solution architecture, and software and/or hardware request
  - Price calculation and offer for the complete product and solution
  - CAD model and drawings for quick integration into the customer’s machine
- Project management
  - Mechanical design for customized products
  - Coordination of logistic process
  - Definition of production process and documents
  - Verification and validation
  - Tests and documentation
- After-sales support
  - Repair and maintenance
  - Field services
  - Trouble-shooting
- Trainings
  - Product trainings for sales people and customers
  - Training on tools (sizing and selection, offer creation)
  - Trainings for maintenance and trouble-shooting
  - Trainings upon customer’s request

**Benefits**
- Quick and competent consulting
- Short realization time
- High functional reliability
- Cost-effective solutions
- High quality standard
- Complete robotics solutions out of one hand

**Contact us:**
- by your Sales organisation or directly
- linear-motion@schneider-electric.com
- robotic.aut@schneider-electric.com

**Delta robots**
- Delta 2 robot
- Delta 3 robot P4
- Delta 3 robot P4 Flat
- Delta 3 robot P4 Compact

**Linear motion**
- Linear axes
- Customized solutions
- Portal robots
Engineered solutions

Your challenges

You are looking for a competent partner who can provide you with complete design services and supply mounted and tested panels based on Schneider Electric components as well as third-party products.

What do we offer?

> **Solution design**
  > Design
  > Development
  > Circuit diagram
  > Testing
  > Commissioning

> **Hardware package**
  > As bill of materials without circuit diagram
  > As control cabinets or DIN rail systems with circuit diagram
  > Hardware package / bill of materials can be ordered under one reference number

> **Hardware components**
  > Schneider Electric products
  > Third-party products

> **Project schedule**
  > Prototyping phase
  > Series production

Contact us:

- by your Sales organisation or directly
- european-flex-center@schneider-electric.com

Benefits

- Only one reference required to order the overall system
- Ready to install / use solutions
- Only one contact for your solution
- Single order or series production
- Software and hardware are optimally harmonized
Order process

Your challenges

You need a competent partner who can supply you with a complete package of automation components that you need for your machine or application without delay.

What do we offer?

> Workflow

1. The requester must contact Machine Solutions Services to:
   > get the latest price list complete with all articles
   > clarify terms and conditions
   > check if sales express service is needed.
2. The requester sends Machine Solutions Services a purchase order.
3. Machine Solutions Services will check the commercial and technical aspects and clarify any discrepancies immediately with the requester.
4. After the clarification, Machine Solutions Services will send you the order confirmation together with all relevant information.
5. Machine Solutions starts the production.
6. After completion of the production, the products are shipped to the delivery address as specified in the order.
7. Then the invoice is sent to the address of the buyer as specified in the order.

> Product Portfolio

> Complete MachineStruxure portfolio

Contact us:

> by your Sales organisation
> or directly
> aftersales@schneider-electric.com

Benefits

> Ordering the complete MachineStruxure portfolio through a central point
> Time and cost savings by the order
> Checking the order of discrepancies
Sales express service

Your challenges

You need a competent partner who will quickly supply you with Machine Solutions products in case of urgency - for example, if after a machine failure you need spare parts or short-term products for completion of a machine during the commissioning phase.

Please note: this service is only available in small quantities and that we charge express surcharge for each product.

What do we offer?

> Workflow

1. Requester sends a request for quotation by email with the following information:
   > Serial number and article number (necessary for replacement of damaged product)
   > Firmware version (Software)
   > Quantity
   > Delivery address and invoice address
   > Name of your standard / declared express supplier
   > Type of delivery: Standard or express delivery
2. At the receipt of the request Machine Solutions Services checks the following (depending on the request):
   > Is the semi-finished product available in stock?
   > Are we able to offer a compatible product?
   > Can we modify a similar product?
   > Is an express production possible?
3. Answer by email with correct material reference, the delivery date and the additional costs for express service
4. Requester sends an official purchase order to Machine Solutions Services
5. Acknowledge of the purchase order within one working hour
6. An order confirmation is sent to the requestor
7. Machine Solutions produces the product and delivers it to the delivery address which is mentioned on the purchase order. Also the tracking number is sent to the requestor.
8. Machine Solutions Services follows the express delivery till it has been picked up, and supports any needed additional customs clearance.
9. Machine Solutions Services invoices the requestor

Benefits

> Increasing machine availability
> More flexibility in commissioning
> Faster spare part supply

Contact us:

by your Sales organisation or directly
aftersales@schneider-electric.com
Operate

On site service and support

Your challenges
You need a competent partner to strengthen your automation team. We can assist you with qualified professionals from application development to commissioning through project management.

What do we offer?
> Engineering service and technical support
  > Specialist staff on sites all over the world
  > Direct troubleshooting on your or your customer’s site
  > Suitable and useful aid and tools
  > Direct replacement of Schneider Electric products on site - experts in automation and motion applications
  > Quick solutions for problems with automation and drive technology
  > Transfer of know-how
  > Training on the job
  > Support on hardware-, software- and process level by specialists

Contact us:
> by your Sales organisation
or directly
> european-flex-center@schneider-electric.com

Benefits
> Direct problem solving and troubleshooting
> Time savings by professional staff
> Experts on site
> Short and fast response times
> Everything from one source
Field service for machine failure

Your challenges

You are looking for a competent partner who supports you on site by troubleshooting your machine. For this purpose, rely on our experienced and well trained field service engineers.

What do we offer?

- **Failure diagnosis on production machines**
  - Restrict the error source through special measuring equipment and practical experience

- **Troubleshooting**
  - Replacement of faulty components
  - Elimination of interferences

- **Documentation**
  - Creation of a detailed service report

Contact us:

- by your Sales organisation or directly
- automation.support.de@schneider-electric.com

Benefits

- Short response times
- Increased machine availability
- Measuring equipment provided by us
- Immediate availability of spare parts
Repair and check service

Your challenges

You are looking for a competent partner who has the expertise to control, test, and repair your products in the event of supposed or established malfunction.

What do we offer?

> **Test**
  > Registration of the product in our database
  > Check the product according to standardized methods
  > Creation of service report
  > Implementation of hardware and software updates

> **Reparation**
  > Registration of the product in our database
  > Check the product according to standardized methods
  > Execution of the repair work
  > Preventive replacement of wear parts
  > Implementation of hardware and software updates
  > Implementation of a system test
  > Long term of continuous testing (RunIn) if no error was given or detected by the customer
  > Creation of repair report

Contact us:

- by your Sales organisation or directly
- aftersales@schneider-electric.com
- rslogistic@schneider-electric.com

Benefits

- Reduced costs through reuse of the product
- Update your product to the latest hardware and software status
- Spare part inventory of tested devices
- Fast repair of your system
Repair express service

Your challenges

You are looking for a competent partner you can rely on for immediate repair after machine breakdown. The express repair service is designed for customers with equipment failure, or if the repaired product is needed immediately.

What do we offer?

> Workflow

1. The requester asks for confirmation that an express repair is possible.
2. In case Machine Solutions Services confirms that the service is possible, the requester will provide:
   - Article number, serial number, product name
   - Fault description
   - Quantity
   - Which carrier / who supplies the unit to us?
   - Who sends the product to us?
   - Arrival date
3. Machine Solutions Services will inform the responsible technician and incoming department about the express repair.
4. The requester sends the defective part, the tracking number and an official purchase order to Machine Solutions Services. The purchase order includes:
   - Product and quantity
   - Delivery address and invoice address
   - Error description for each product
   - Name of usual / declared express carrier
   - Type of delivery: Express or standard delivery
5. After receipt of the product we will handle it without delay and pass it on to the technical service.
6. Once the repair is done, Machine Solutions Services ships the product back and invoice the requester.

> Special case

- In case the unit can not be repaired or the repair work will be expensive, Machine Solutions Services will inform you before any further steps are taken.

Contact us:

- by your Sales organisation or directly
- aftersales@schneider-electric.com
- rslogistic@schneider-electric.com

Increased machine availability through rapid repair

Ensure quick return by express delivery or direct delivery

Benefits
Your challenges

> Quick service of machine installed half a world away
> Optimize international after-sales service costs
> Manage export-related constraints such as travel costs, administrative issues, languages, customs
> Further develop your service business abroad

What do we offer?

> Schneider Electric has put in place a unique program called “Customer International Support” (CIS) based on:
  > A network of 190 dedicated local country correspondents
  > A web collaborative platform for most efficient communication
  > Our local service teams
> The simple fact that your machine is equipped with Schneider Electric components entitles you to:
  > Request for a local technician intervention on site where your machine is operating
  > Access to local spare parts
  > Terms and conditions follow normal local practice

Contact us:

> www.oem.schneider-electric.com

Benefits

> Reduced costs: no travel abroad, technical capabilities available locally
> Fast response: Intervention provided by local technician at end user site
> Ease of communication: speaking the language of your customer
> Global reach: Schneider Electric is active all over the world
> Development of your own service activity using Schneider Electric local resources
The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Design: Schneider Electric
Photos: Schneider Electric