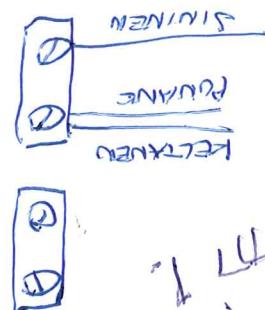
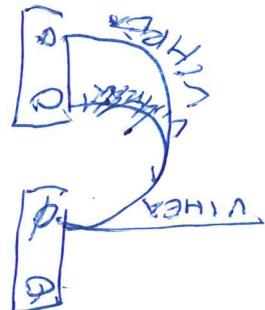
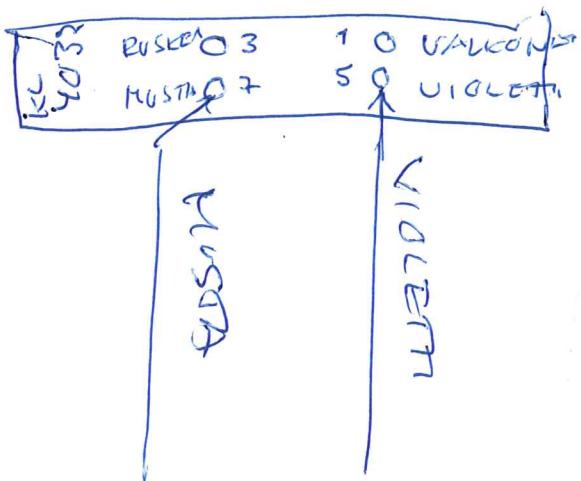


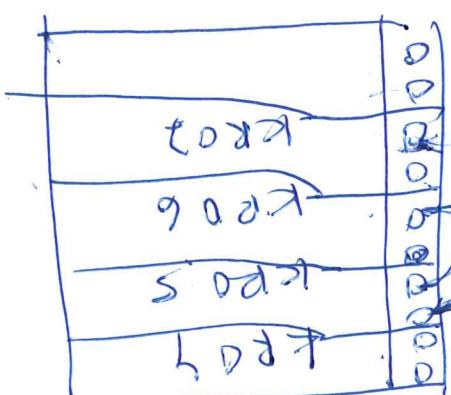
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SIVUINEN



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VIHTE

SAFETY
CONTROLLER
RUCKHAND

SAFETY
CONTROLLER
FRONTSITE

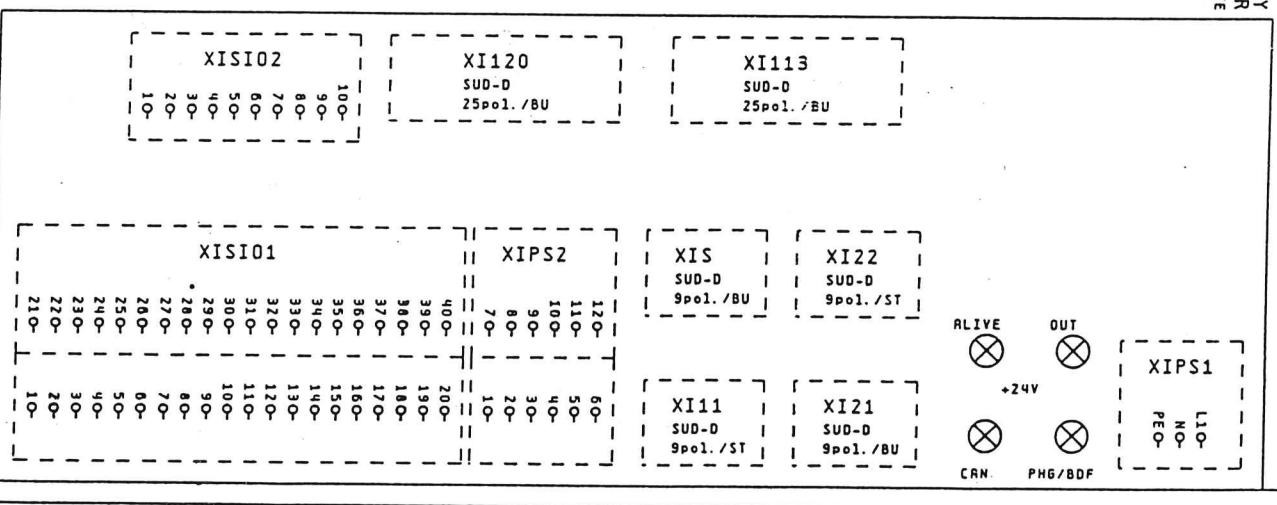
RESET
KIPPSCHALTER

SERVICE-MODE
KIPPSCHALTER

PROGR.-MODE
KIPPSCHALTER

ANBAUSEITE

ANSICHT VON
HINTEN |



ANBAUSEITE

ANSICHT VON
VORNE |

Datum :	18. Aug. 1999	Montag:	
A-Dat.:	26. Mai. 1999	SRVG	ROBOT-STAR V
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Aenderung	Name	Urspr.:	Ers.

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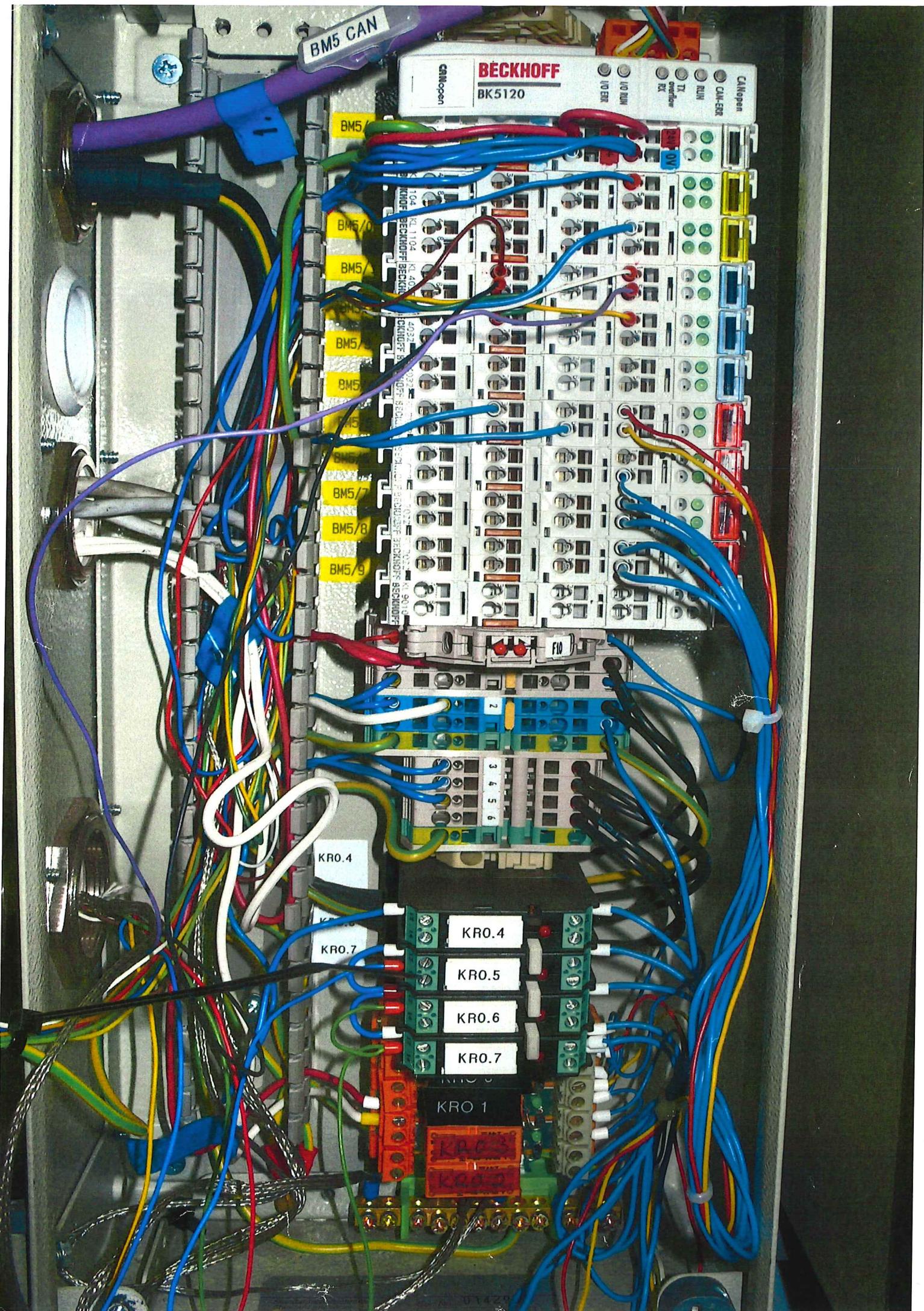
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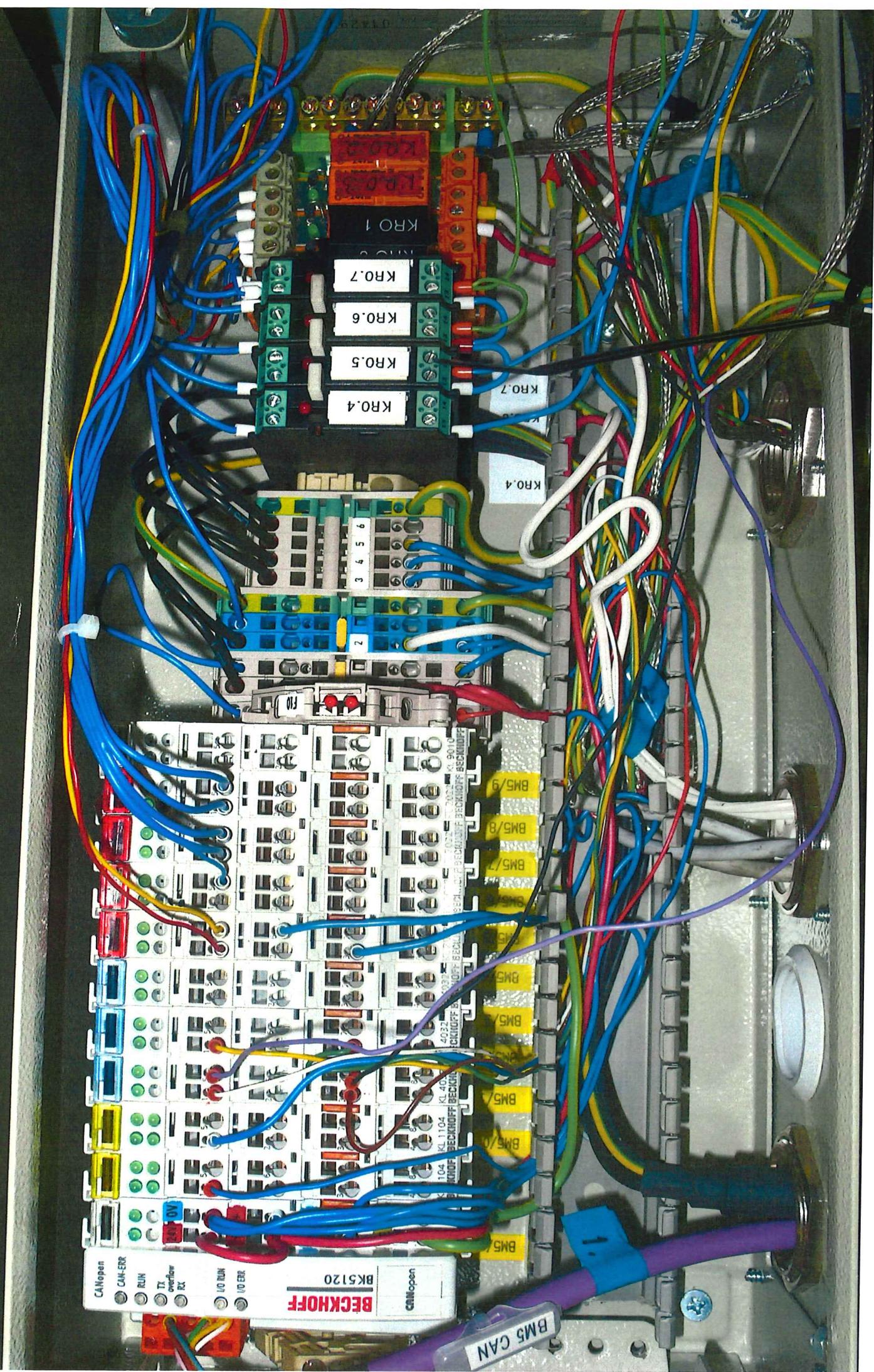
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KRO 1

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KRO.4

KRO 1

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KRO 6

KRO 5

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Advantages and benefits of REIS automation systems

- In house development and production of robots, controls and peripheral equipment
- Far-reaching experience, more than 7,000 installations worldwide
- Turnkey systems with process and procedure responsibility
- Customer-specific solutions fine tuned in all detail
- Extensive product range with modular design
- Professional training and process development, user orientated and effective
- Worldwide renown, competent service
- First class references in all fields



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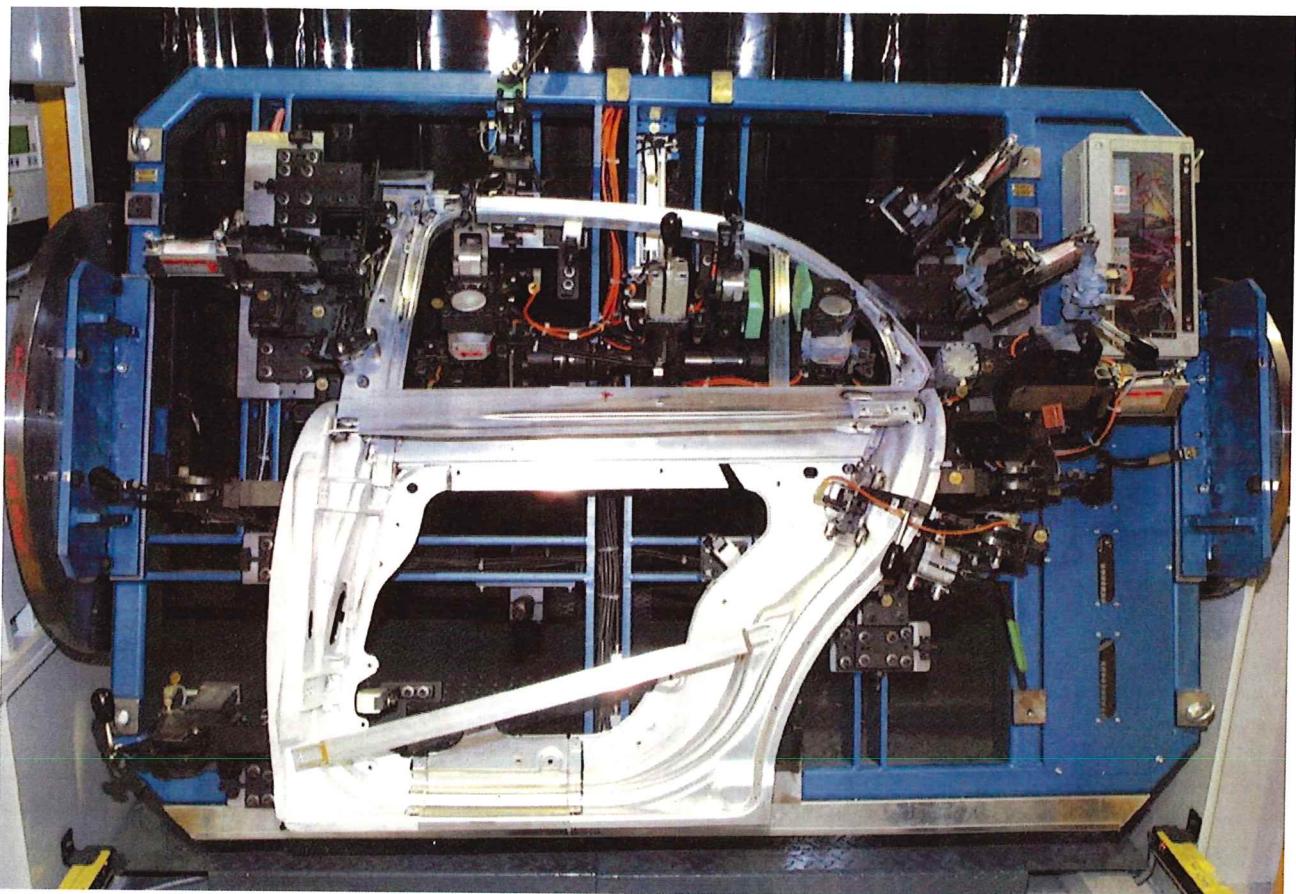
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Phone: +55 (0 xx 11)-3612-2154

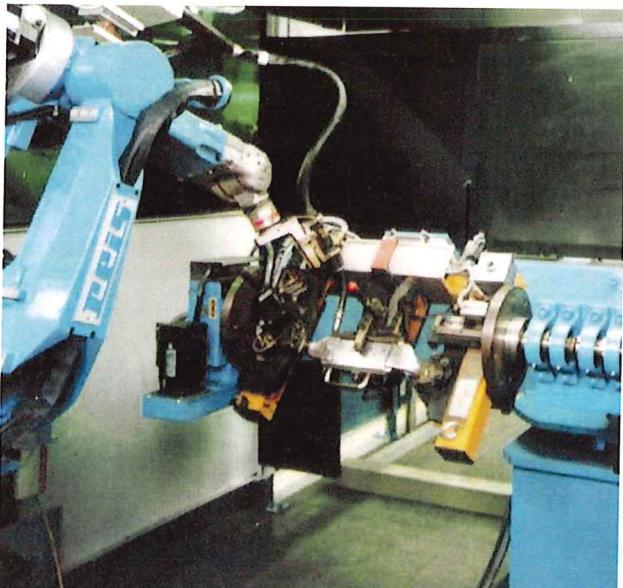
Fax: +55 (0 xx 11)-3612-2047

Fixtures

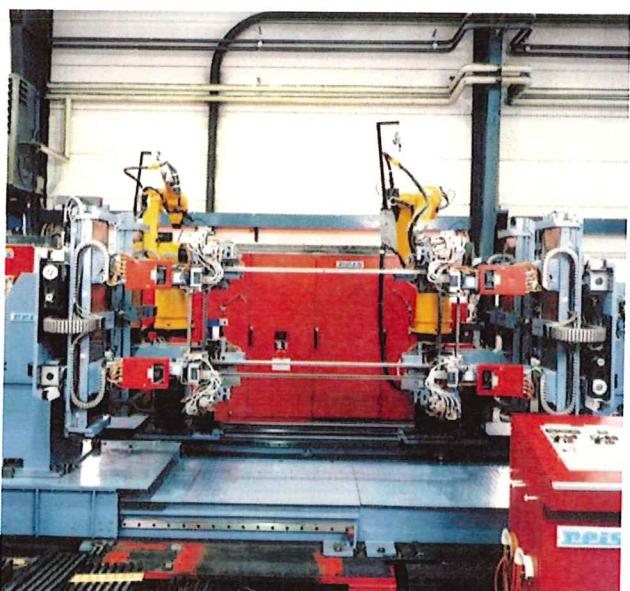
Automation specific and user friendly adjusted in all details



Robot and operator friendly positioning or clamping device for reception of car door frames. Monitoring and controlling of all-important functions through BUS technology.



Pneumatic welding device for exhaust recirculation systems from stainless steel, in customer specific design.



Freely programmable device with 7 axes integrated into robot control, for automated production of control cabinets.

Movable welding cabins

Turnkey, immediately ready for operation, in various designs



Movable welding cabin with manual rotary table (2-station operation) for component feeding and 6 axes welding robots. Mounting of robot control and welding hardware on rear side of same transportation frame.



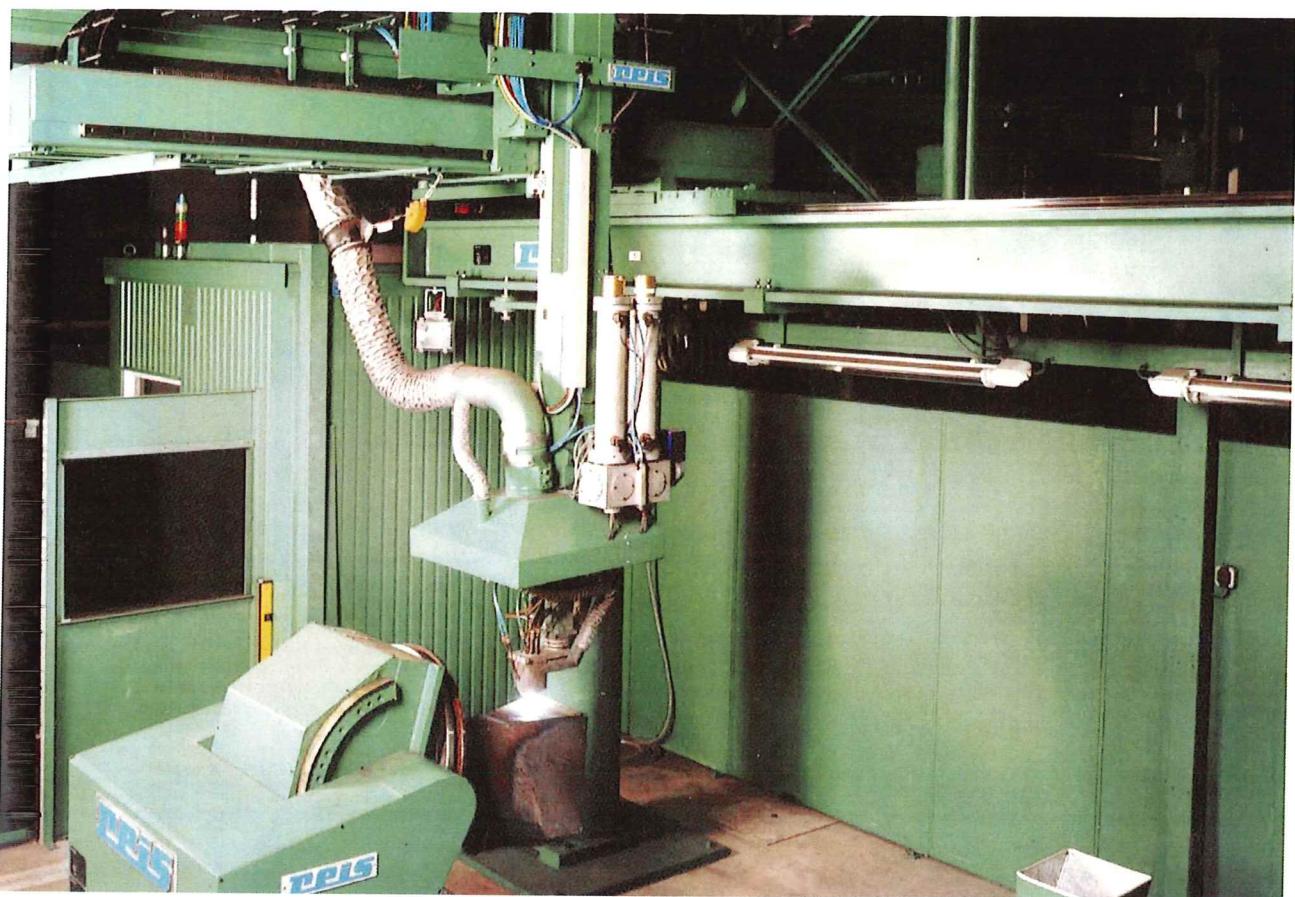
2-station welding cabin with integrated freely programmable head and tailstock turning devices and centrally located welding robot.



Robot welding cabin with electrical 2 to 4- station rotary table and safeguarded insert lock.

TA welding systems

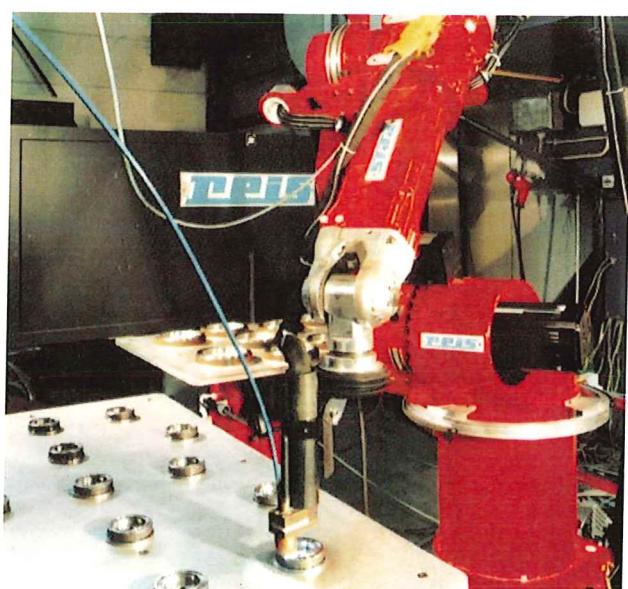
High quality coating installations for highest economic efficiency



High capacity plasma surfacing welding system for the production of wear components or sheet metals with surfacing capacities of up to 20 kg/h.



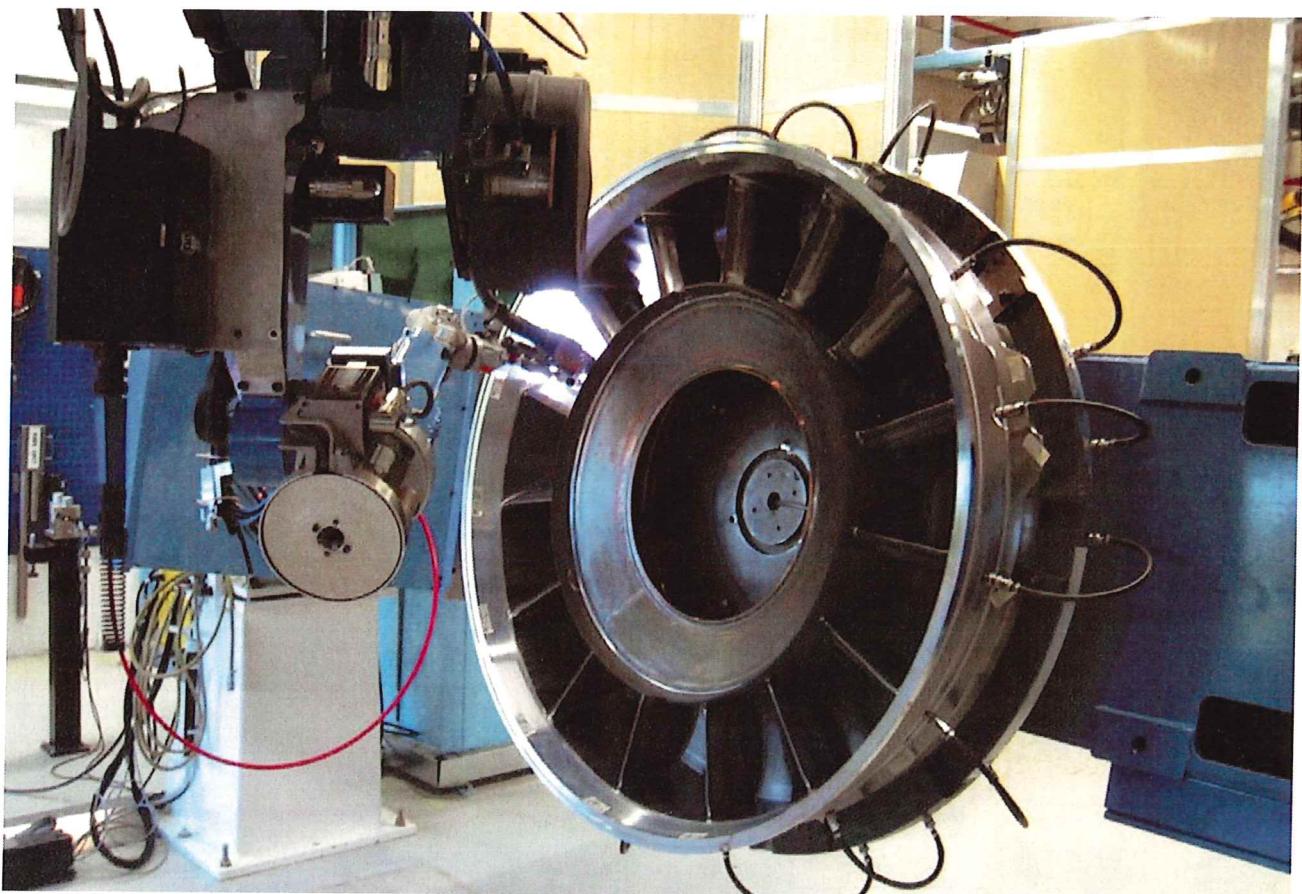
Surfacing of specific wear protection by means of wire or powder to preheated molds by handling parts under stationary welding torch.



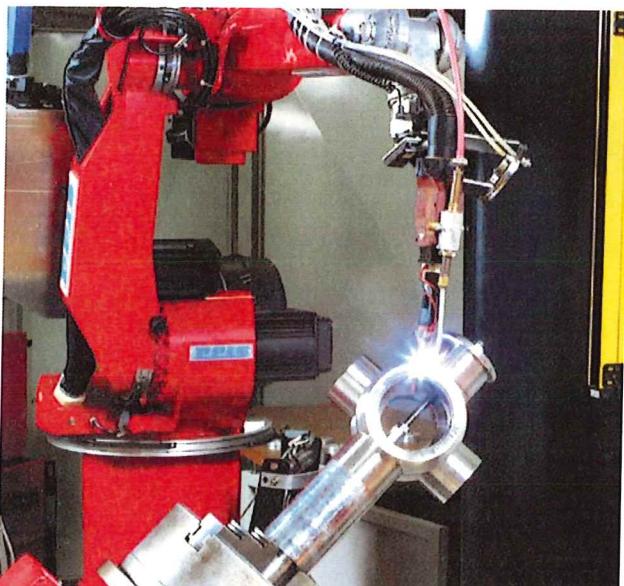
PTA welding of valve seats in connection with manual rotary table and upright robot in 4-station operation.

TIG welding systems

Highly precise robot and peripheral modules for demanding applications



Robotic production of high end components for aircraft turbines with a total of 10 freely programmable axes. Use of sensors for compensation of tolerance.



Handling and welding of stainless steel fixtures with automated feeding and unfeeding of components by means of combined weld torch/gripper.



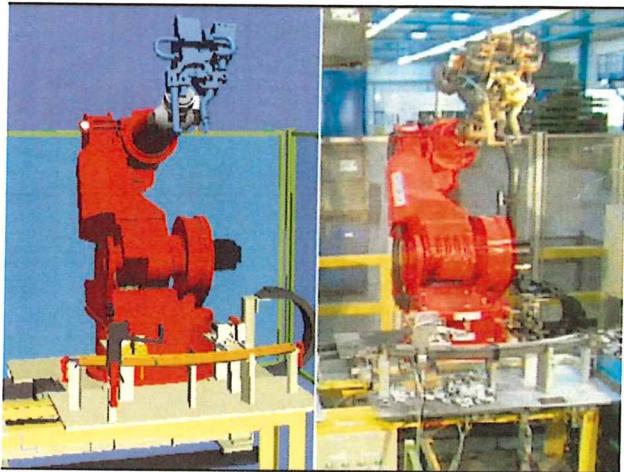
Precision welding of thin-walled pressure gauge casings from stainless steel with or without cold wire feed.

REIS ProSim - Simulation software

ProSim allows visualization and simulation of new or modified robot processes and installation concepts offline at the PC. The realistic representation of all installation components and sequences already in the planning phase ensures a reliable process analysis. This reduces the program-related machine downtimes up to 80%.

Advantages:

- Robot programming and program test run with integrated anti-collision check on Windows-PC
- Graphical programming
- Reduction of the program-related machine downtimes
- Realistic planning and reliable feasibility studies of the robot processes
- Examination of the cycle time
- Direct data exchange via the robot
- Signal simulation
- Import of 3D CAD geometry via various interfaces possible
- 3D CAD module for modeling of robot and work cell
- Layout generation functions: Loading, deletion, placing, duplication and measuring of objects



All control functions run in RobOffice under the same conditions like in the real control ROBOTstarV. Thus, you will receive reliable information about program operation, cycle times and accessibility of positions.



In cooperation with:



With ProSim you can plan and analyze process sequences and cell concepts true to reality. ProSim explains all traversing movements of the robot, anti-collision examinations and the cycle time.



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Reis GmbH & Co. Maschinenfabrik · P.O.Box 110161 · D-63777 Obernburg
Tel: ++ 49 (0) 60 22-5 03-0 · Fax: ++ 49 (0) 60 22-5 03-110 · Internet: www.reisrobotics.de

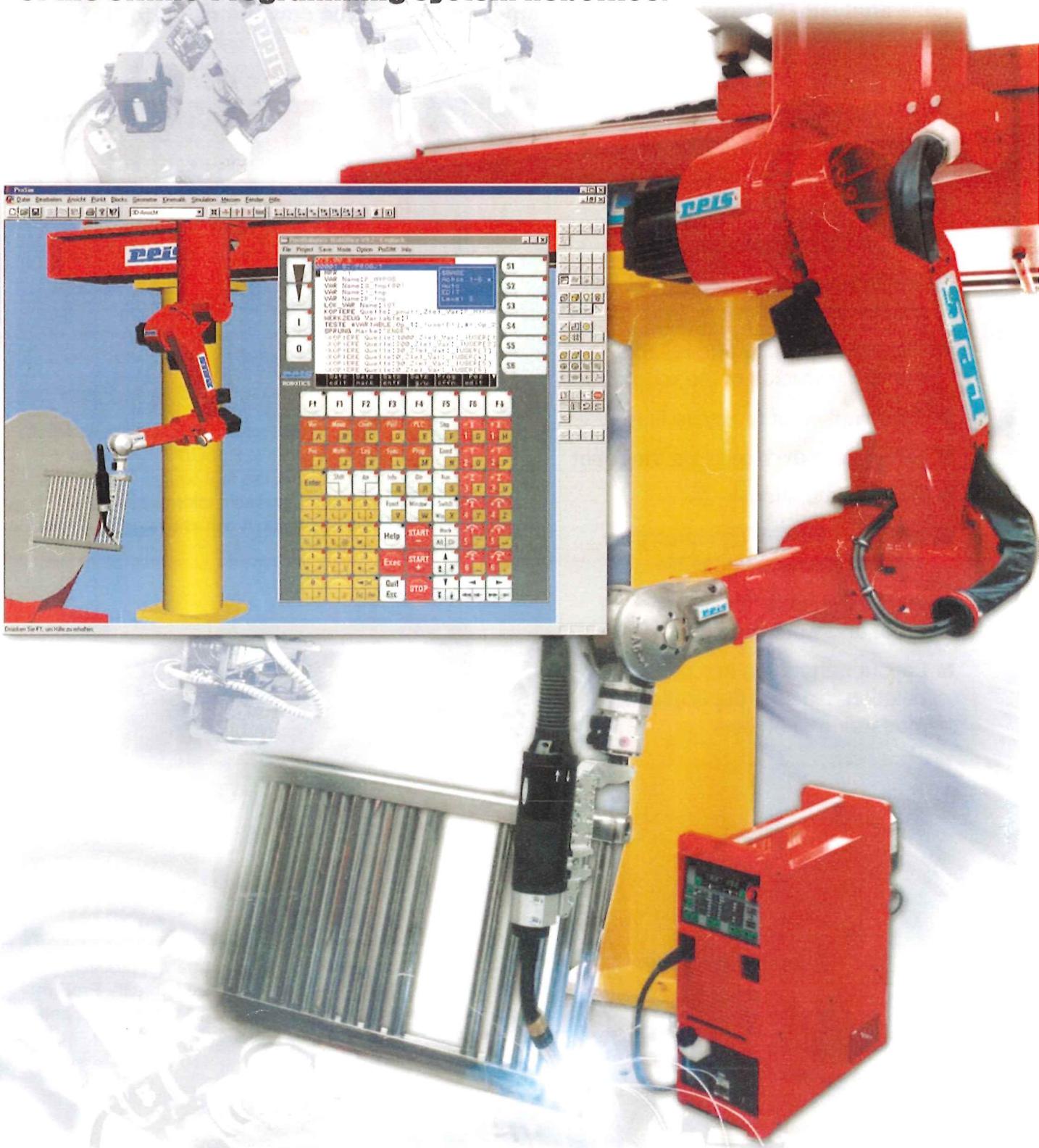
Reis Subsidiaries in Italy, France, Spain, Czech Republic and Brazil. Sales and service in many countries.

REIS ProSim

The simulation software for optimal extension and visualization of the Offline-Programming system RobOffice.

RobOffice - offline tool

RobAssist - application related programming and operating tool



REIS ROBOTICS - leading in systems integration

Complete systems from one source.
Competent, custom and economical.

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REIS ROBOTS and PERIPHERAL MODULES

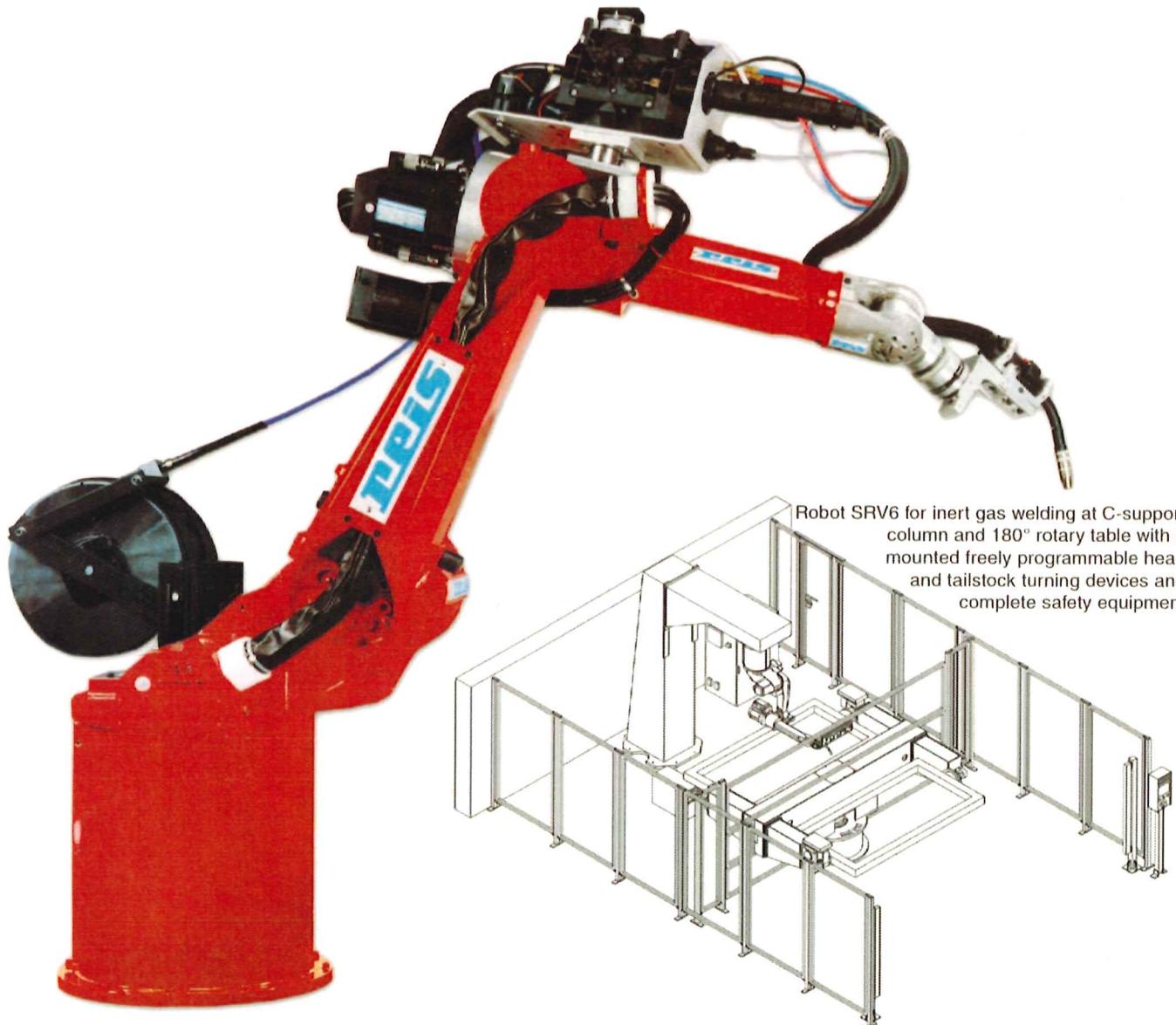


**WELDING
& CUTTING**

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REIS ROBOTS

Robot series	Max. load	Add. load	Work envelope
SRV4	4 kg	6 kg	Ø 2,160 mm
SRV6	6 kg	10 kg	Ø 3,050 mm
SRV6L	6 kg	10 kg	Ø 3,450 mm
SRV16	16 kg	10 kg	Ø 3,070 mm
SRV16L	16 kg	20 kg	Ø 4,800 mm

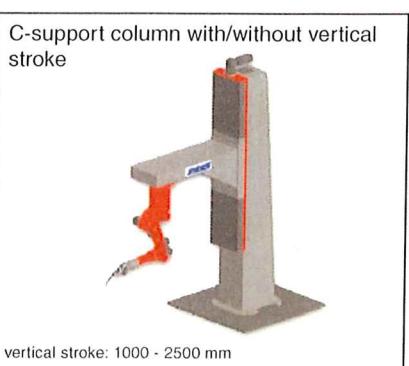
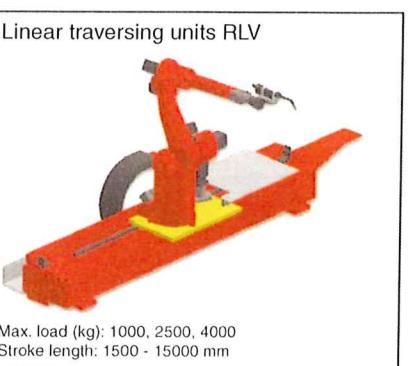
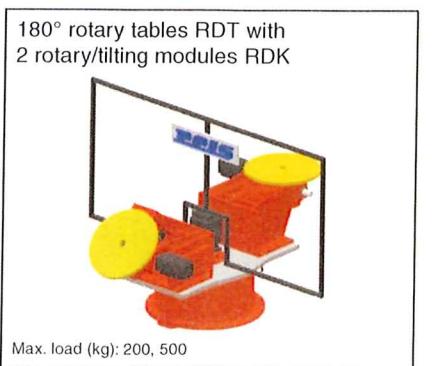
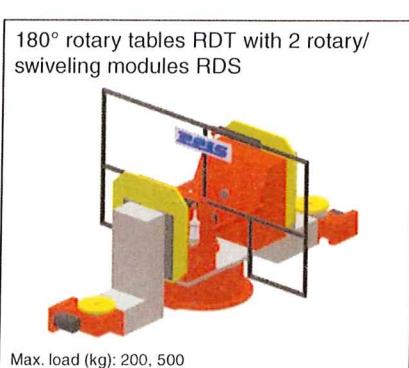
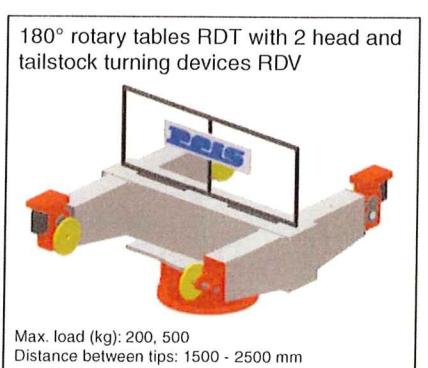
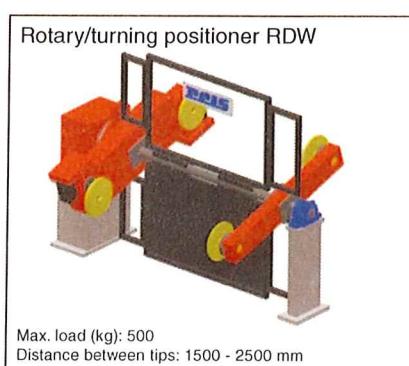
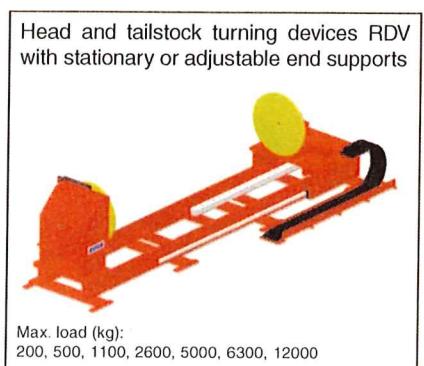
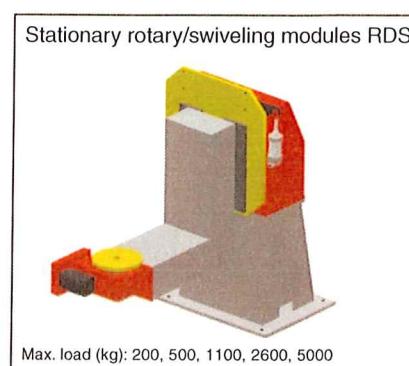
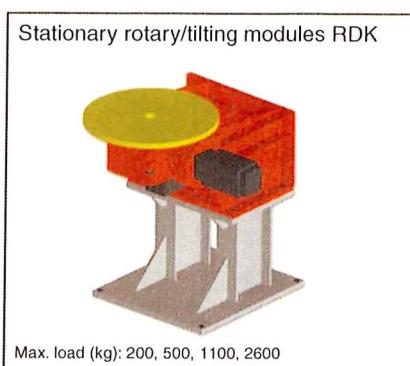
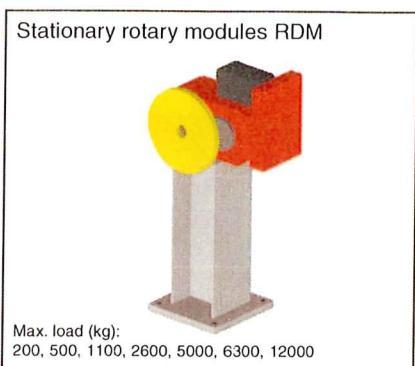


Advantages:

- Usable for all welding and cutting tasks
- Repeatability ± 0.05 mm or ± 0.1 mm depending on robot series
- Shortest cycle times due to high dynamic AC servo motors
- Transformation of multiple axes of all additional peripheral axes
- Reduced programming efforts due to e.g. automatic program adjustment

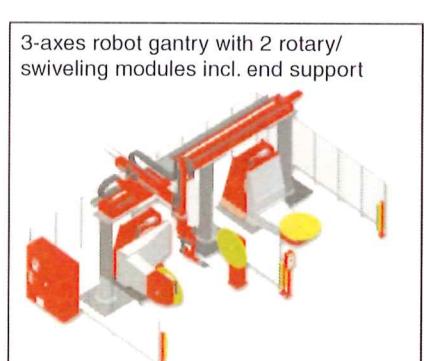
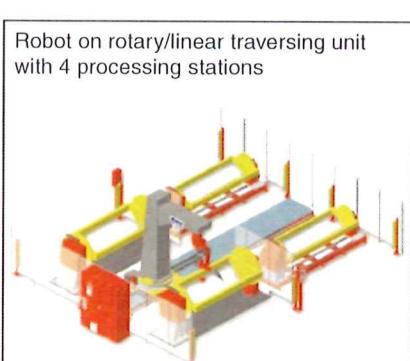
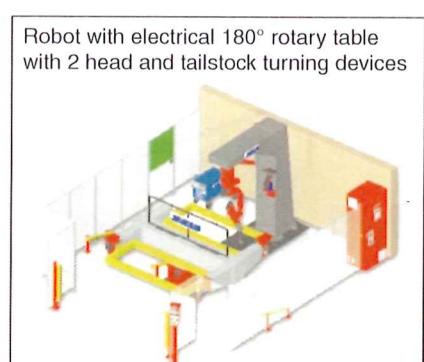
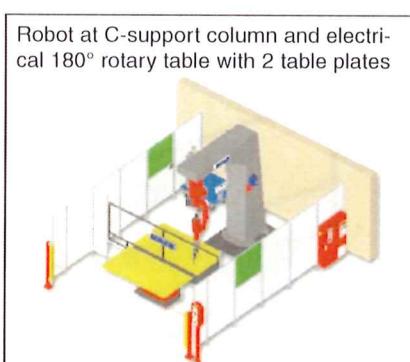
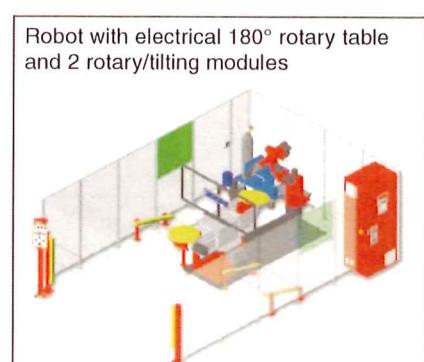
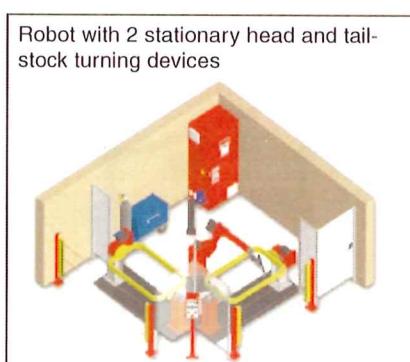
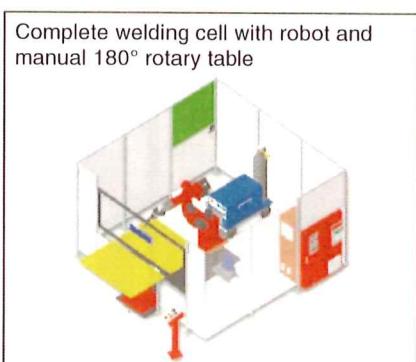
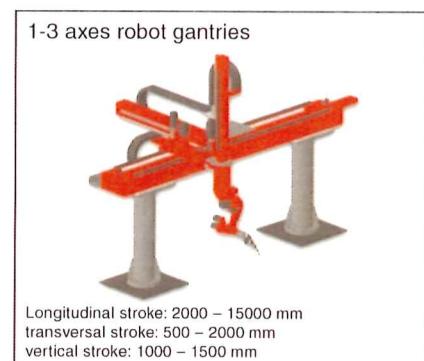
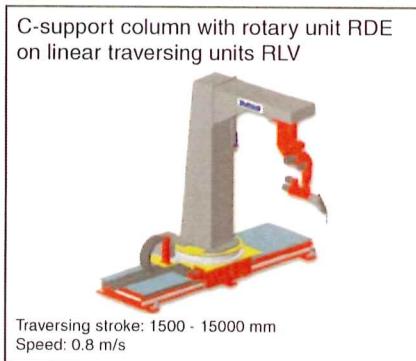
REIS STANDARD PERIPHERAL MODULES

The standard peripheral modules are freely programmable and fully integrated into the robot control. Thus workpieces are provided to the robot in an optimum way. This ensures highest quality at shortest cycle time.



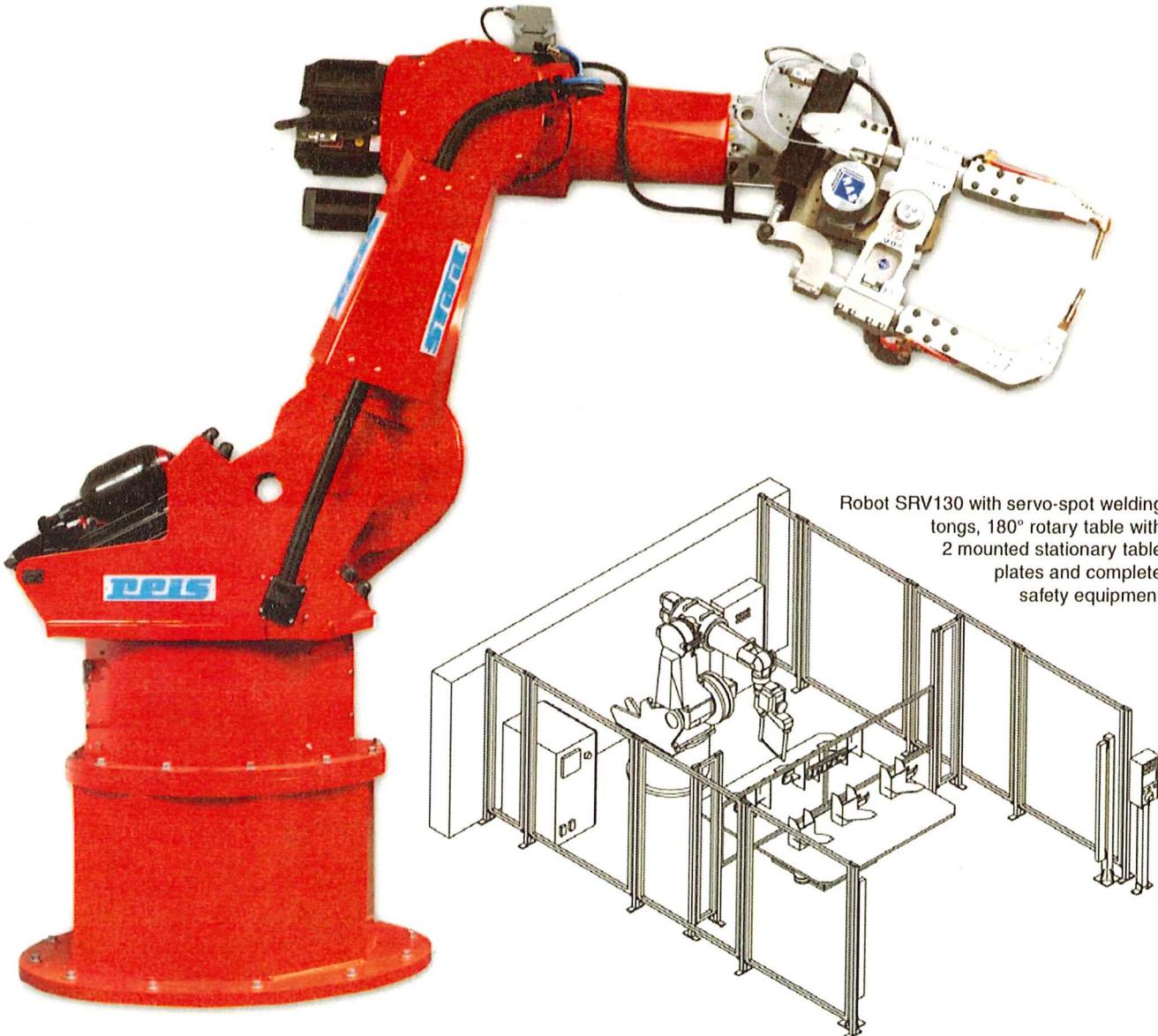
REIS STANDARD PERIPHERAL MODULES

The standard peripheral modules are freely to combine among each other. With it, standard systems can be arranged individually with up to 24 freely programmable axes at low cost.



REIS ROBOTS

Robot series	Max. load	Add. load	Work envelope
SRV40	40 kg	20 kg	Ø 5.300 mm
SRV40S	40 kg	20 kg	Ø 5.900 mm
SRV60	60 kg	20 kg	Ø 4.500 mm
SRV60L	60 kg	20 kg	Ø 5.960 mm
SRV60LS	60 kg	20 kg	Ø 6.600 mm
SRV130	130 kg	80 kg	Ø 5.194 mm



Robot SRV130 with servo-spot welding
tongs, 180° rotary table with
2 mounted stationary table
plates and complete
safety equipment

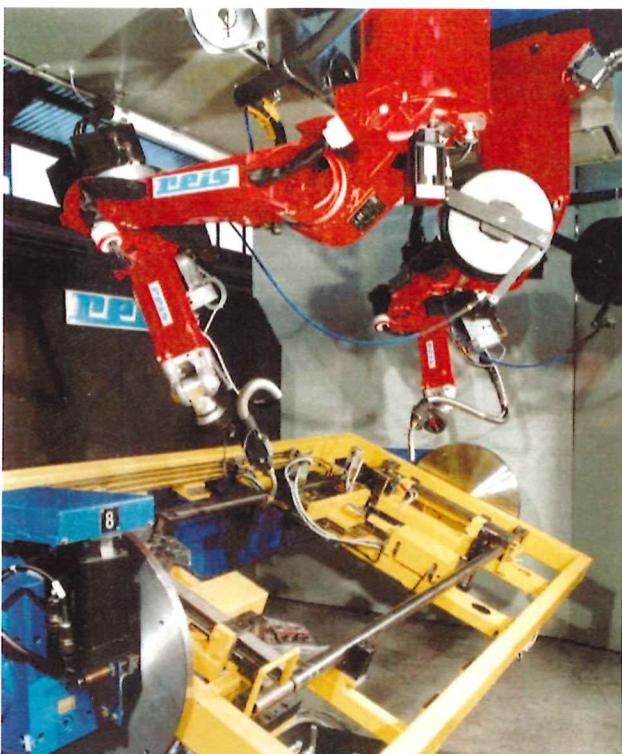
Advantages:

- Usable for all joining tasks e.g. spot welding, punch riveting, pressure joining etc.
- Handling of components beneath a stationary welding or cutting torch or joining tool
- Repeatability ± 0.1 mm or ± 0.4 mm depending on robot series
- Error-tolerant position measuring system towards external interference
- Graphical offline programming system to increase the system utilization

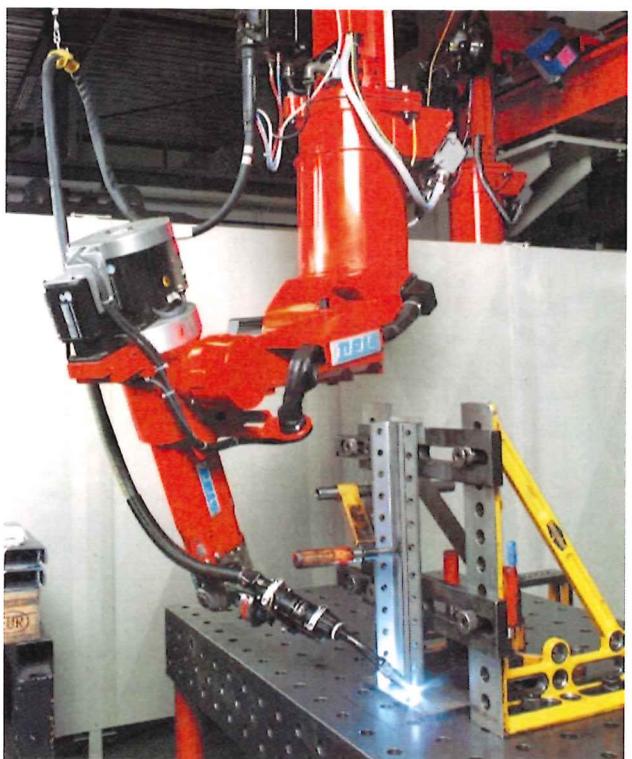
REIS APPLICATIONS



MAG welding of fuel tanks



Master-slave system for scaffold components



Small series production with modular fixtures construction



Gantry welding system for large components

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REIS ROBOTS and SYSTEM SOLUTIONS

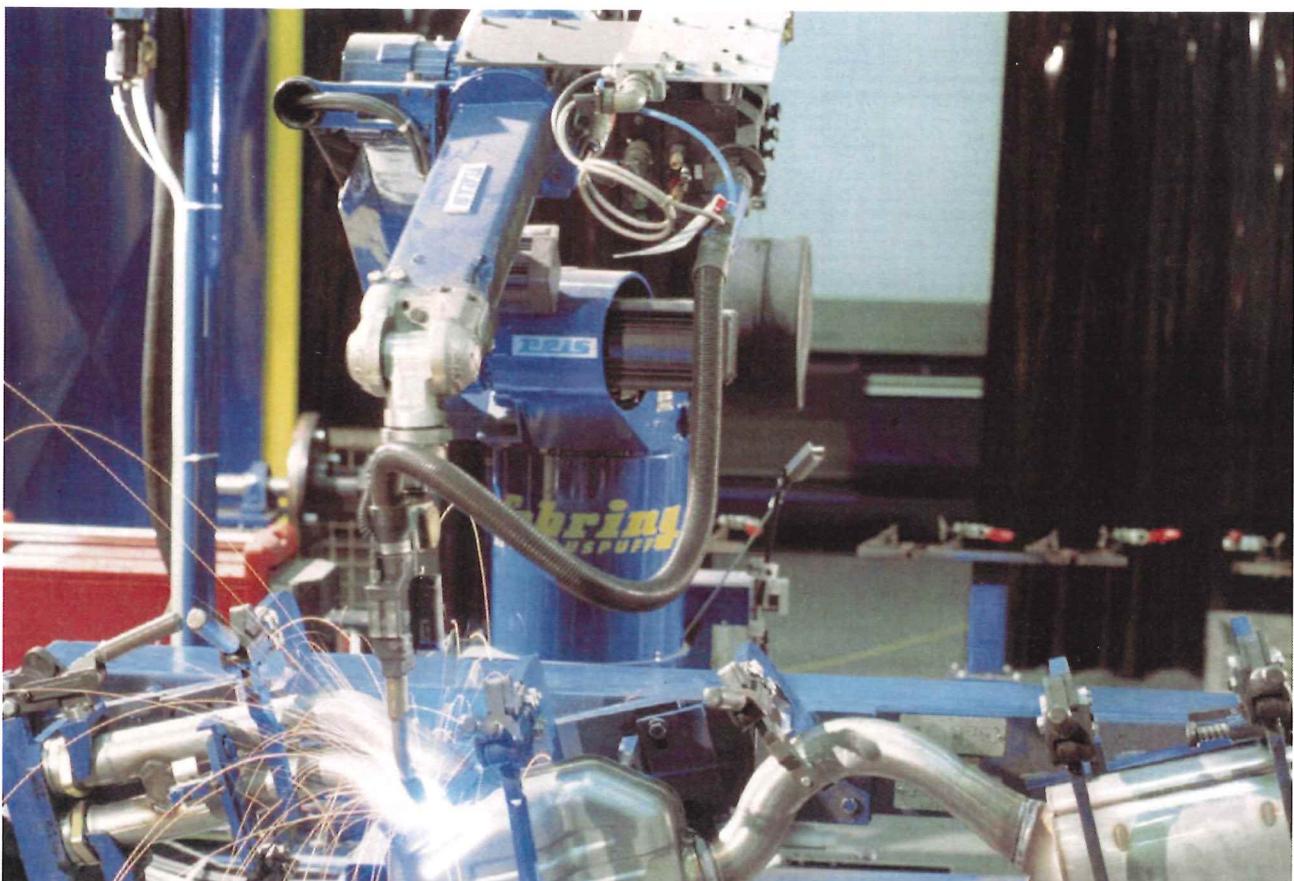
**WELDING &
CUTTING**

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Leading in systems integration

MAG welding systems

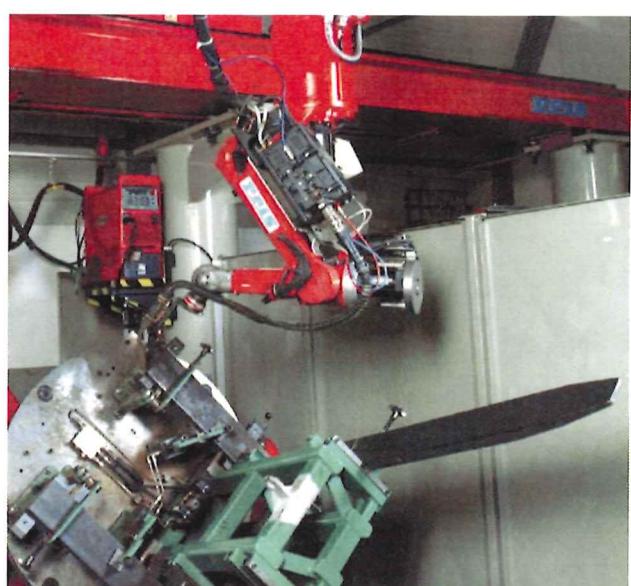
Competence and experience for solutions proven in practical use



6-station welding system with 3 robots for automated production of exhaust systems in thin sheet metal. Integrated process and quality monitoring.

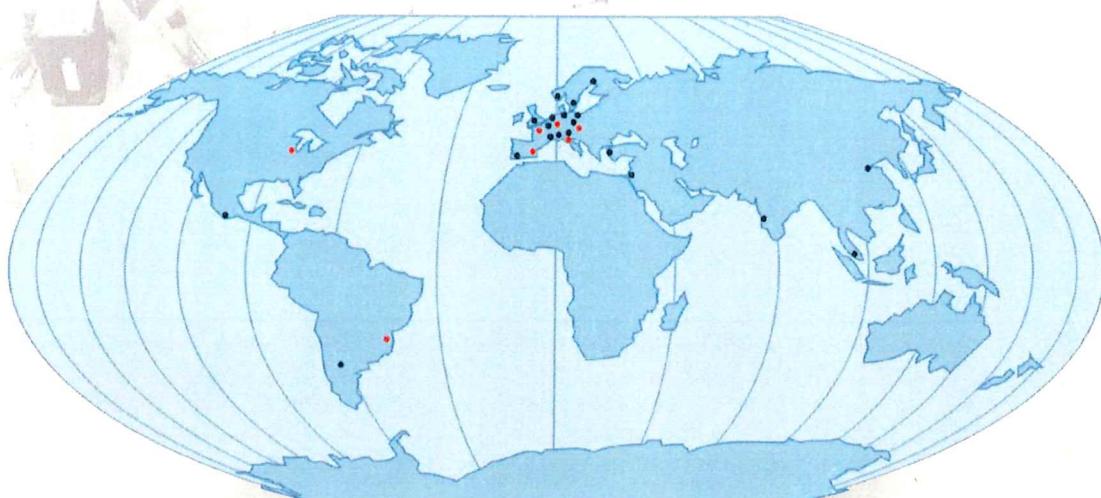


12 axes gantry welding system for the production of heavy machine frames. Components positioning via freely programmable rotary/lifting axis.



Automated production of forks for lifting trucks through freely programmable rotary/tilting modules and robot cantilever gantry.

REIS ROBOTICS – All over the world



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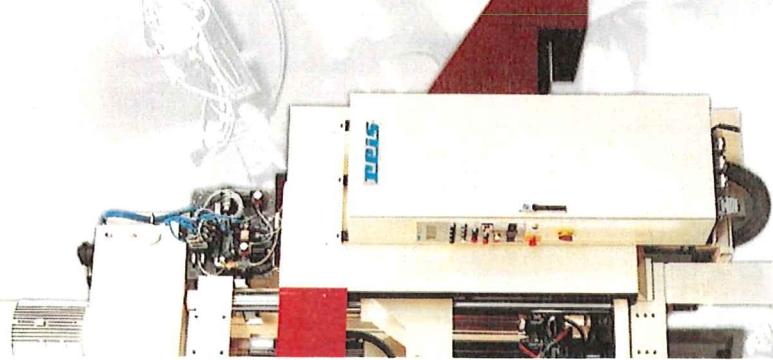
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CZ-430 01 Chomutov
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Fax: ++42 (0) 396-6385-20



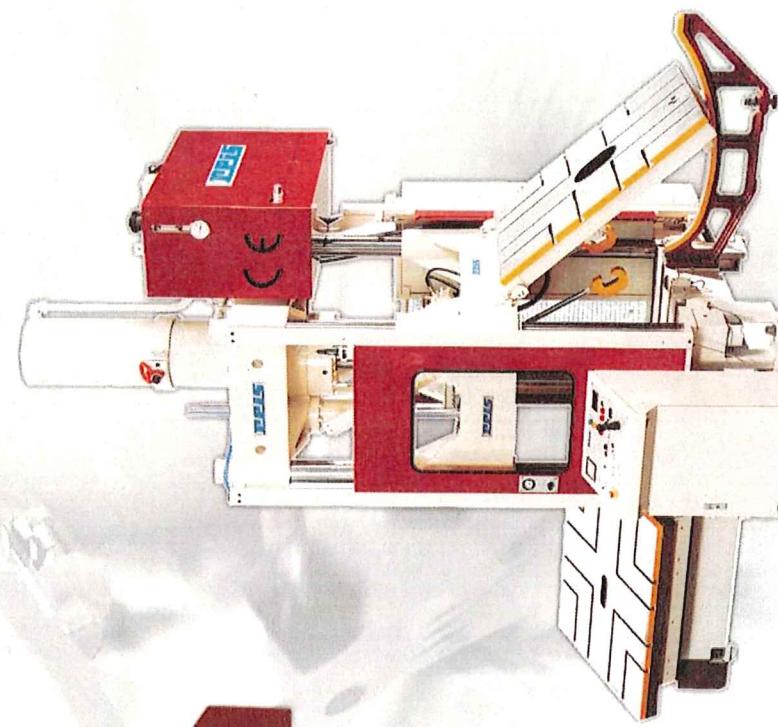
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sses and trim tools and processing stations have been the
'gy, quality and performance for decades.

The performance is based on state-of-the-art machinery &
control. Up-to-date manufacturing methods and systems &
and high performance technology.



A complete series.
precision and



Hydraulic try-out and spotting presses make dies and
tools ready for production at low cost and high quality.



Final assembly of a group of robots.



Our own manufacture of precision components
and quality inspection.



100 % calibration of all robots



Employees for consultation, planning, project design and execution ensure competent attention during all phases of the project. The subsidiaries and partners ensure full support and fast service on site worldwide.



on and planning for correct customized



Highly qualified service technicians for assembly and installation, commissioning and programming guarantee continuous, fast and economic service for the life of the product.

Commissioning an operation by the customer



Programming in modern



Full training programme and programming and

First-class references:

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Paris Continental Gummiwerke Hanover Daimler-Benz Stuttgart Desag Grünenplan 2 Faun Laur d. Pegnitz Fahrer Brunschwieg Festo Neidlinger Fichtel & Sachs Kitzingen Fischer Gf. Metzmann Ford Berlin Düren Köln Ford Motor Dagenham Swansea (England), Belfast (Ireland), Bordeaux (Frankreich), Detroit Cleveland (USA) Fuji Kleve Grohe Grundfos (Dänemark) Halberger Guß Saarbrücken Haring Espelkamp Hilli Lichsteiner Norsingen Hirschmann Esslingen Honeywell Emmer (Niederlande) Mössbach Hönsel-Werke Meschede Solingen Hülsbeck & Fürst Velbert Städtl. Karrenm. Osnabrück Kaup Aschaffenburg KHD Köln Kienzle Willingen Kohl Senking Hildesheim Kolbensmidt Hamburg Neckarsulm Lever Sunlicht Mannheim Lunde Aschaffenburg Löhr & Bornkamp Offenbach Löffer Lübeck LSG Frankfurt Martin Göppinger Mahle-Werke Stuttgart Manesmann-Demag Fördertechnik Usar Walter Marresmann Rexroth Lohr Mann & Hummel Ludwigsburg MBB Dornierwöth Metabo Nürtingen Michelin Halstedt Karlsruhe Bad Kreuznach Meile Gütersloh Mittelnahr Wülfrath Mössner München Werdohl Pälzer Seligenstadt Papst-Motoren Herbolzheim Perguform Göttingen Peiri Aschaffenburg Brasilien Peugeot Automobiles Mulhouse (Frankreich) Philips Hamburg Pierburg Berlin Nettetal Pontiac Motor (GM) Pontiac Michigan USA Porsche Stuttgart Procter & Gamble Cralithew Worms Mechelen (Belgien) Recticel Wetteren (Belgien) Cincinnati (USA) Recticel Wetteren (Belgien) Rheinbreitbach Renault Automobiles Paris Roventa Offenbach Erbach Solvay Brüssel (Belgien) Schenck Maulbronn Siemens Würzburg Bad Neustadt SKF Schweinfurt Frankenreich USA Sihlach Schmidt & Maiwald Werdohl Stihl Weinsheim Thyssen Bogen Wuppertal Vaillant Roden Geisenkirchen Remscheid VDO

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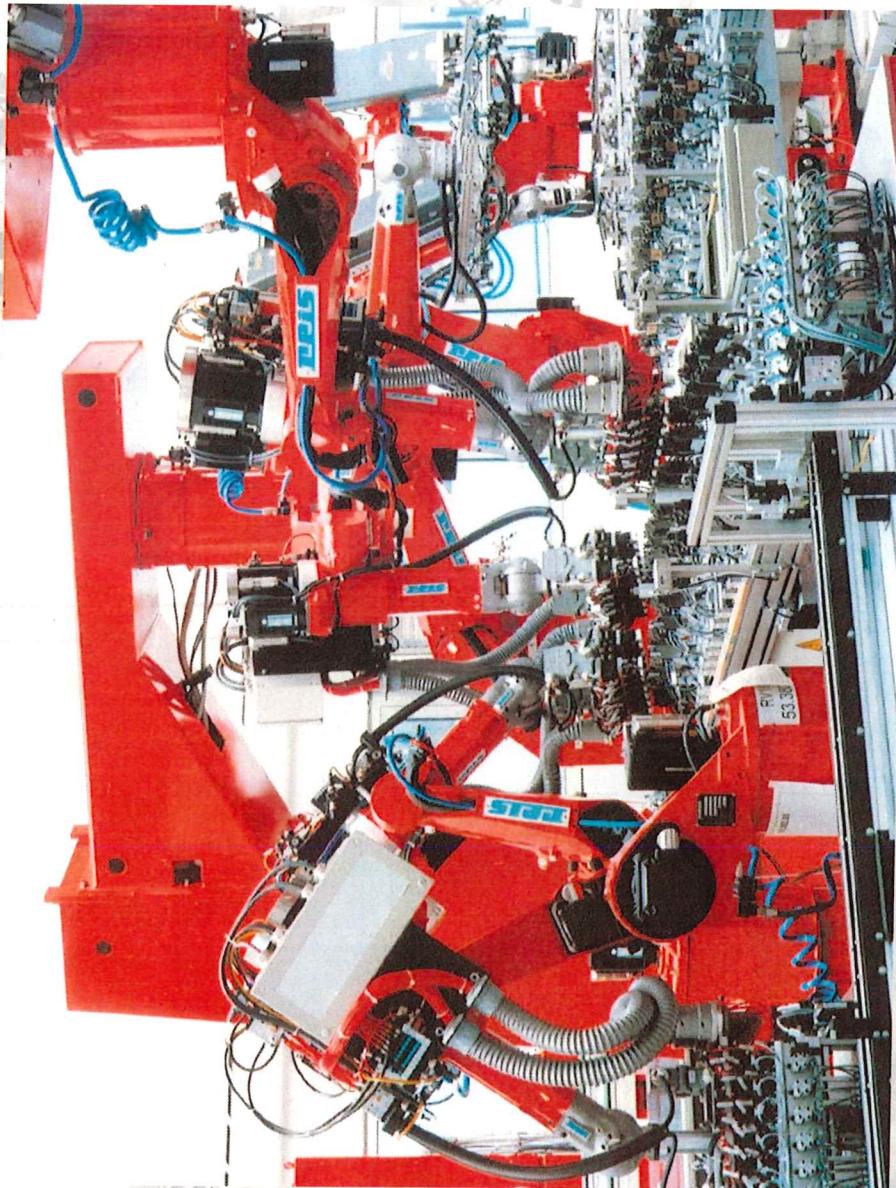
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Complete systems from one source



Automation of r



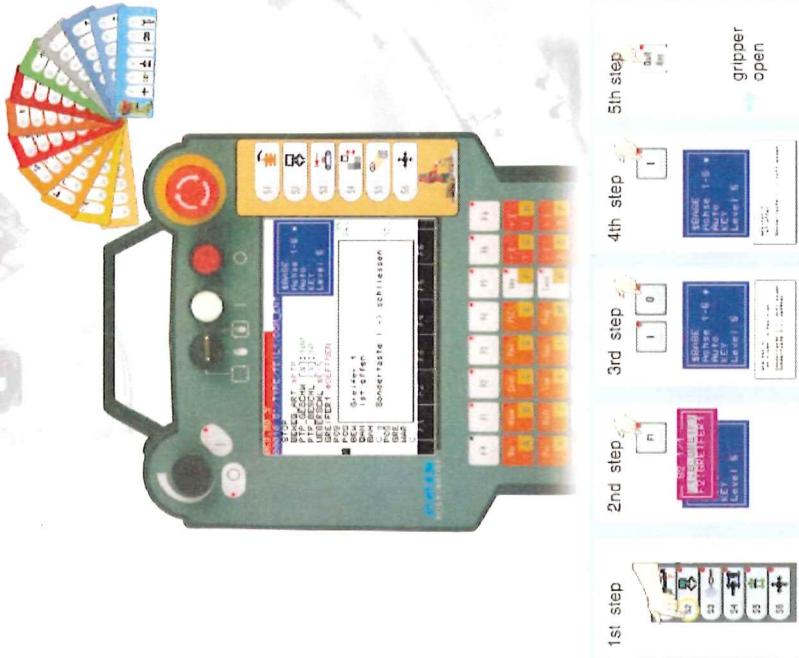
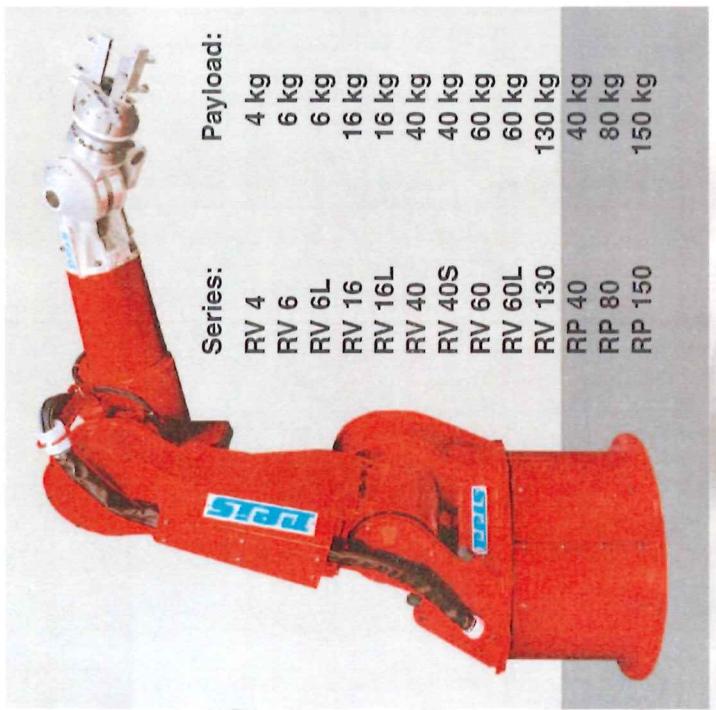
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develops and manufactures a complete series of high
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The ROBOTstarV robot controller from REIS – an ap
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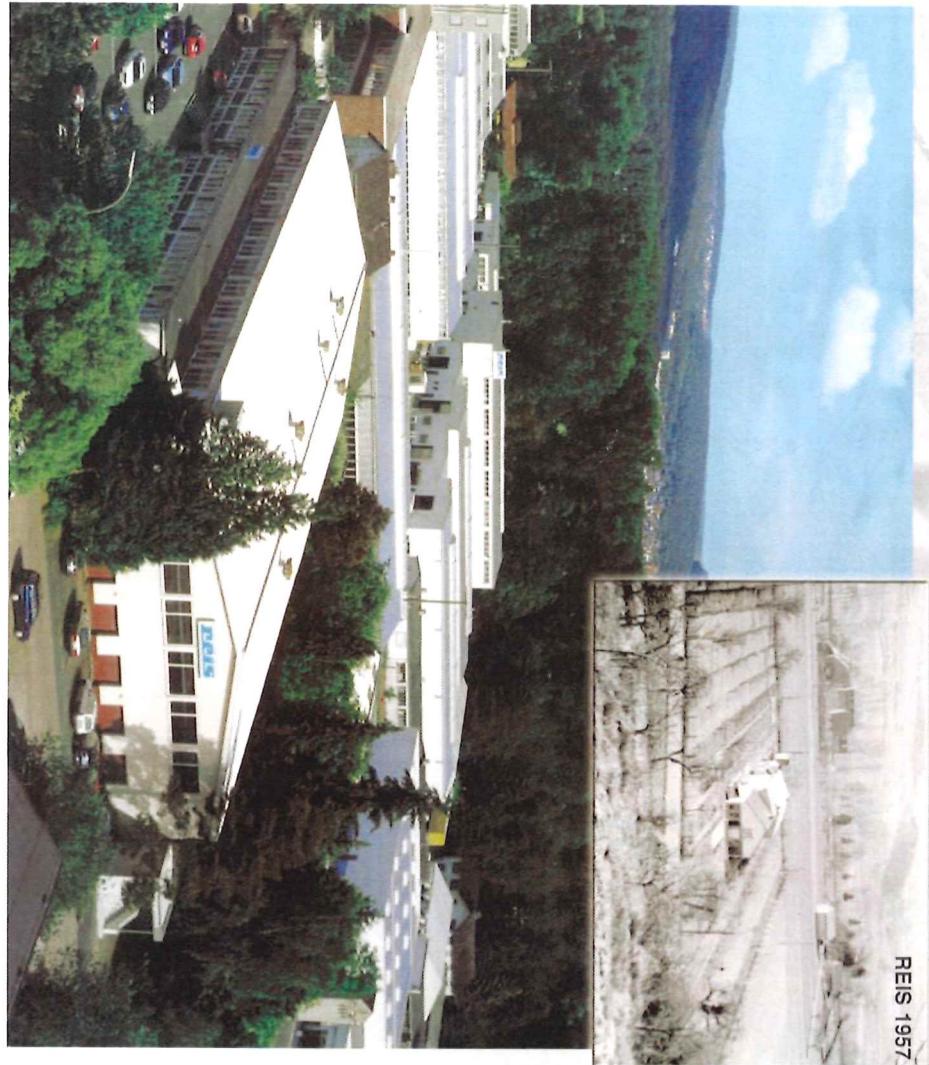


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s a leading technology company for robot and system integration. The company's success is based on the great experience of turnkey solutions automation units. REIS offers a broad product line of robots and standard peripheral modules in all major application fields. Additional products include: Try-out and Spotting Presses as well as Trim Presses and T



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