

Single-purpose machines

Production and development of custom production machines, lines and special equipment

The technical possibilities of machinery significantly influence the success of any manufacturing company. Our TED division provides its customers with solutions in the form of custom production machines, lines and other equipment according to their specific needs. The comprehensive delivery from an analysis of the environment and production needs up to service and follow-up care guarantee the long-term value of the equipment. Variability and the principle of custom manufacturing provide solutions for all types of applications and industries, including demanding applications in the automotive, electrical and ammunition industries and in hazardous environments.



Comprehensive solutions

from initial conception to final implementation, testing, commissioning and training of machine operators.



Development

for the optimization of the designed solution making use of high performance 3D software, prototyping and functional verification of solutions before their actual implementation.



Extensive production facilities

featuring extensive technological equipment, including CNC machines, skilled workers and effective cooperation across divisions.



Focus on quality

according to the internal quality management and ISO 9001 standards aimed at high productivity and professionalism.



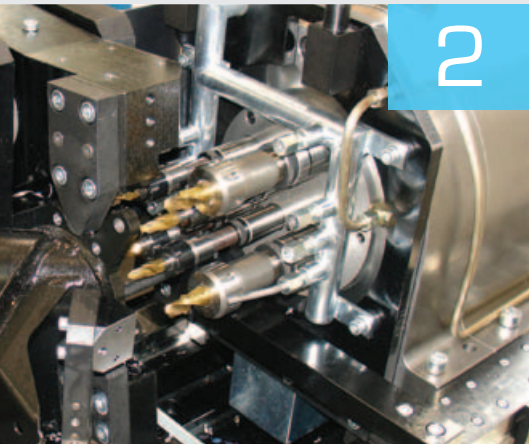
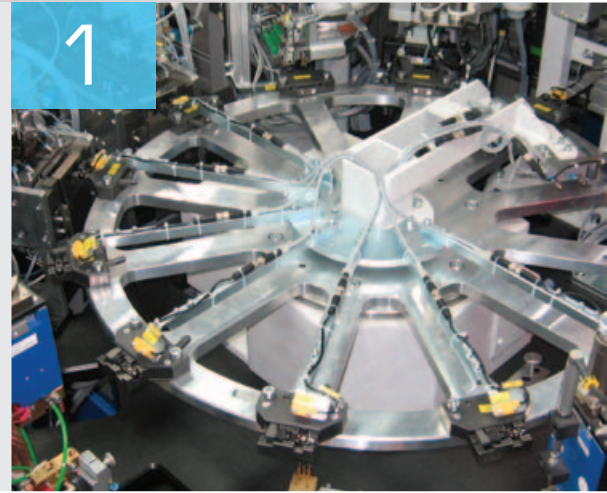
Individual approach

of a team of experts with many years of experience with more than 500 completed projects.

Welding machines and lines

Camshaft sensor assembly line

This machine is designed for the assembly of the camshaft sensor; the electronic parts of the sensor are welded by a micro spot resistance welder. The machine works in fully automatic mode; the operator only manually loads pallets with parts and removes pallets with finished products from the machine. The products are checked by a camera system. The machine consists of two rotary twelve-position tables with technology and the central conveyor.



2

Machines: brushing, drilling, rolling, machining, cutting

Machine for drilling holes in rear axles

Machine for drilling holes in rear axles of vehicles designed for installation in the line. The machine is equipped with a pair of six-spindle drilling heads and two traversing units with servo drives, hydraulically and pneumatically operated clamps, a coolant unit and a chip conveyor.

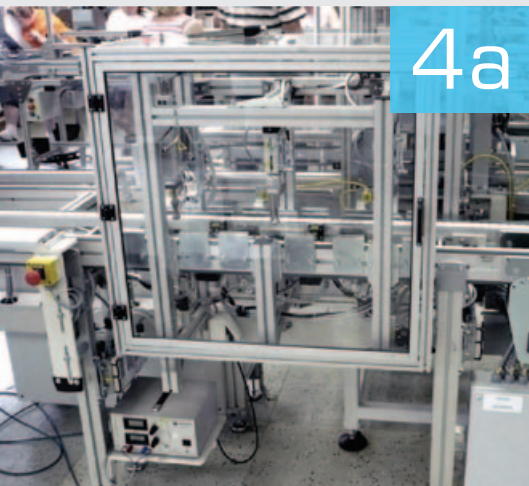
Cleaning and labelling machines: labelling of intermediate products, engraving, cleaning stations, pressure cleaning

Brushing machine for pump shaft components

The machine is designed for brushing cylindrical forms, eccentric forms and necks of injection pump shafts of different diameters. The machine collects parts from a tray filled by operators. A sliding linear servo-unit grabs a component intermediate product and gradually performs brushing of cylindrical forms and recesses. After brushing, the finished piece is placed on the output conveyor belt.



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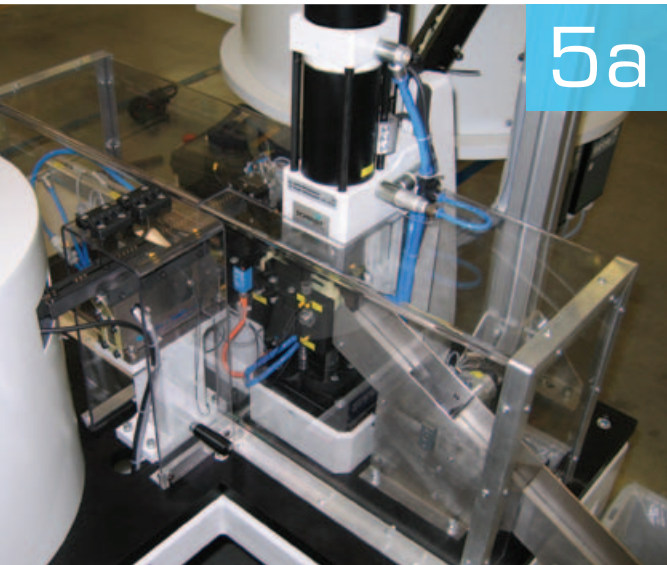
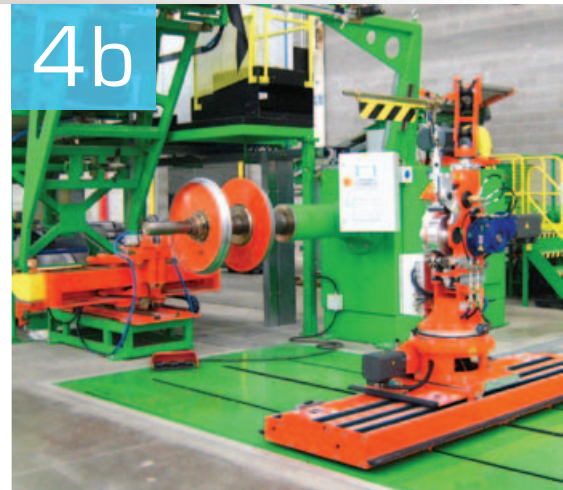
Production lines: manipulators, conveyors, gantry machines

Production line for the assembly and testing of electric motor brush holders

The device is used for soldering and testing of motor brush holders. The base is an aluminium frame with a conveyor pallet system and functional and test units of the line attached to it. The operations of manual soldering, testing of spring pressure and electric properties, laser marking and camera surveillance are carried out at 14 stations. The switchboard with the control panel stands alone.

Production line for fitting treads of large tires

The tread fitter is used for fitting the tread on the casing of tractor tires that are prepared on a front-end standard machine. The tire casing, which is already fixed on the front-end machine, is fitted with a hot rubber band from the extruder to form the tread cross-profile as programmed by the machine control system. The rubber band is formed between two calender rollers and rolled on the tire casing by a coating pulley turning the casing.



Assembly machines and lines: assembly lines, finishing automatic machines

Machine for striking brass saddles

The machine is a separate unattended workplace. The components are fed through a vibrating magazine and bars to the stamping unit. The stamping unit forms brass saddles for the stop surfaces in the connector holes. The strength and position of insertion are evaluated during stamping.

The base is a welded frame with attached vibrating magazines, a component feeder, a stamping unit, switchboard and control panel.

Assembly line for the production of car seats

The 30-meter-long assembly line is intended for the manufacture of left and right front vehicle seats. The chain conveyor on aluminium profiles is driven by gear motors and an induction motor designed for three-shift operation.



Machine for winding plastic tube of fuel filter

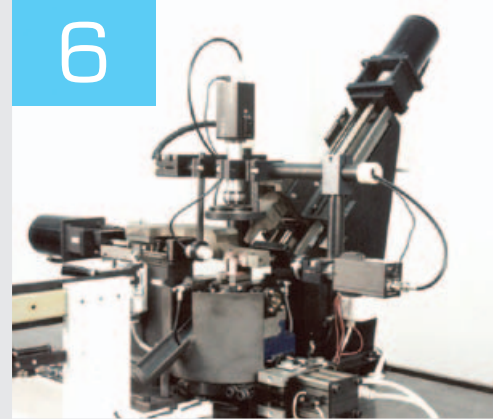
The machine for winding the plastic tube is used for automatic winding of mechanically inserted plastic tubing with one type of material followed by another type of material.

Both of these materials are of the same width for the respective length of the plastic tube.

The ends of the wound material are ultrasonically welded to the plastic tube.

Visualization systems: control station, measuring of forms and distances, automatic finishing machines
2D setting of the spark-over distance between the outer and inner electrodes of engine spark plugs

The CCD visualization system accurately measures the actual distance between the electrodes in real time. Based on the measured data, the outer electrode is bent using a forming tool and actuator. The possible number of electrodes set in this way on one plug is 1, 2, 3, 4.



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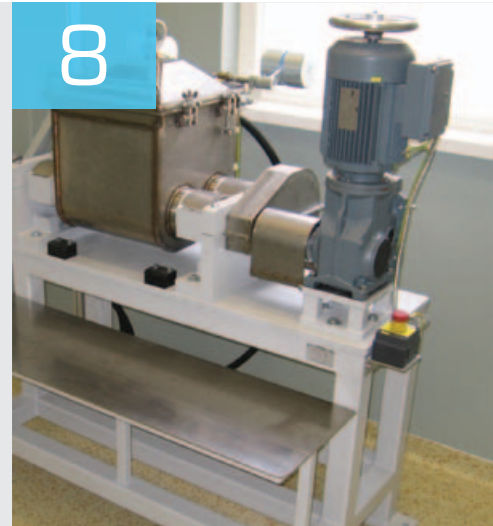
Test machines and measurement: combustion engine test stations, dynamometers, vehicle test stations, equipment modernization and reconstruction
Combustion engine test stations

This machine is used to test the performance characteristics of combustion engines. The operator connects the engine to the media. The machine in automatic mode performs the measurement and evaluation of engine performance parameters. The torque, power, speed, temperature, oil pressure, emissions and engine control unit operation are evaluated. When the test is completed, the engine is evaluated and cleared automatically of all media.

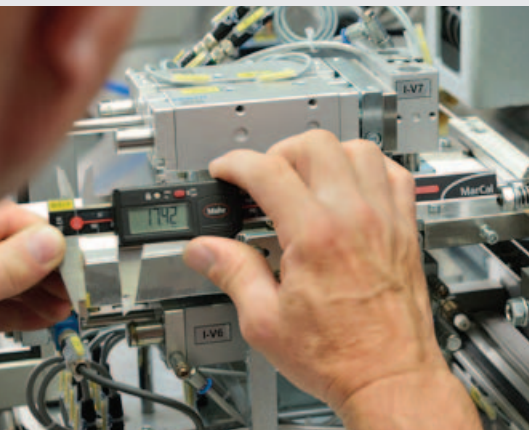
Machines for hazardous environments: loading of explosives, injection of flammable materials, dipping and mixing ignition heads of vehicle belt tensioners, mixing of compositions

Pyrotechnic composition mixer

The machine is located in the explosive environment of the vault, the switchboard in the hallway of the building. It is protected against switching by a safety limit switch at the vault door and a safety limit switch at the tub cover. When the temperature limits are exceeded, the machine is stopped by a temperature sensor. The operator adds the composition charge gradually into the tub. After mixing, the resulting mass is poured in the container on the table.



8



Service

- Complete servicing and other services related to the operation of special purpose machines and production lines manufactured under the brands of Mezservis and TES Vsetín
- Servicing of equipment from other manufacturers under an agreement
- Long-term service contracts with a guarantee of service response time
- Comprehensive service care