

About us

The GSI – Gesellschaft für Schweißtechnik International mbH was founded by DVS – German Welding Society in 1999.

It is an amalgamation of efficient Schweißtechnische Lehr- und Versuchsanstalten (SLVen) having over 80 years of ex-

perience in joining and testing technology. GSI is a non-profit, limited-liability company which operates independently for individuals, skilled-trade businesses, industrial companies, authorities and research bodies. The aims of GSI are joining-related education & training, consulting and national and international technology transfer.

Our services – your advantage

- Education and training according to national and international guidelines
- E-Learning, in-house and company-specific courses
- Education and training abroad
- Accredited testing laboratories (EN ISO/IEC 17025)
- Notified body according to 97/23 EG Pressure equipment directive (PED)
- Stationary and mobile tests
- Rapid technology transfer
- Confidential contract research and development
- Comprehensive and neutral investment consultancy

Company locations of GSI



GSI SLV

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Theoretical education and practical training

Education and training safeguards the future



Research and development

Research, development and technology for optimized fabrication



Services

Quality assurance creates trust



Material engineering of high-quality-products



Education and training

Individual learning, progress-oriented training for welders

- Manual metal arc welding
- Gas-shielded metal arc welding
- Tungsten inert gas welding
- Gas welding

All courses lead to internationally recognized welder qualification tests (e.g. EN 287-1, ISO 9606-1, ISO 9606-2 etc.)

Special training

- Welding with flux-cored wires
- Low-energy arc welding
- Reinforcing steel welding
- Stud welding
- Resistance welding
- Underwater welding
- Welding of aircraft components
- Welding of railway vehicles
- Robotic welding
- Welding of plastics
- Laser beam welding/cutting/surface treatment
- Brazing
- Thermal spraying
- Adhesive bonding
- Mechanical joining
- PED-Certification of welding coordinators
- Qualification testing of welding operators ISO 14732

Education and training, testing and certification according to ISO 9712 (NDT)

- Radiographic testing RT, levels 1-3
- Penetrant testing PT, levels 1-3
- Magnetic particle testing MT, levels 1-3
- Ultrasonic testing UT, levels 1-3
- Visual testing VT, levels 1-3
- Film evaluation RT 2.FI

Education and training: Responsible welding coordinators/supervisors

Through distance courses/e-learning and courses with compulsory classroom attendance

- DVS-IIW International Welding Engineer (IWE)
- DVS-IIW International Welding Technologist (IWT)
- DVS-IIW International Welding Specialist (IWS)
- DVS-IIW International Welding Practitioner (IWP)
- DVS-PersZert-Certification of International Welding Coordinators
- DVS-IIW/EFW Welding Inspection Personnel (IWIP)
- DVS-Welding Designer
- DVS-Welding Shop Foreman
- DVS-Welding Instructor (Certification)
- DVS-EWF Adhesive Bonding Engineer (EAE)
- DVS-EWF Adhesive Bonding Specialist (EAS)
- DVS-EWF Thermal Spraying Specialist (ETSS)
- DVS-EWF Specialist for Resistance welding (EWS-RW/EWP-RW)

Education and training: Specialist corrosion protection personnel

- Coating inspector according to FROSIO

Conferences/Seminars

- Special conference:
 - Welding in installation engineering and tank construction
 - Resistance welding
- International conference:
 - Beam technology
 - “Welding Trainer – The future of education”
- Expert conference:
 - Joining and design for rail vehicle construction
 - Wear protection of components by means of thermal spraying
 - Railway welding technology
- Conference welding in maritime technology and engineering
- Seminars regarding different subject areas

Research and development

Processes and procedures

- Arc welding
 - Gas-shielded arc welding, low-energy arc welding, plasma arc welding, orbital welding, drawn arc- and initial contact capacitor discharge stud welding, magnetically impelled arc welding and submerged arc welding
- Resistance welding
 - Spot-, protection- and seam welding as well as capacitor discharge welding
- Flash butt welding
- Laser beam material processing
 - Laser beam welding, inscription, hardening and brazing as well as laser beam/arc hybrid welding
- Electron beam welding
- Magnetic impulse welding
- Friction welding
 - Rotational friction welding, multi-orbital friction welding, friction spot welding, linear friction welding, friction stud welding and friction stir welding
- Ultrasonic welding
- Thermal cutting
 - Flame, plasma arc and laser beam cutting
- Brazing
 - Flame brazing, induction brazing, furnace brazing, gas shielded metal arc brazing and resistance brazing
- Coating, corrosion protection and damage analysis
 - Tandem gas shielded metal arc weld surfacing, single-wire gas shielded metal arc welding, seam weld surfacing, thermal spraying and hot wire TIG welding
- Surface treatment
 - Hardening, remelting, alloying and surfacing
- Adhesive bonding
- Mechanical joining processes
 - Punch riveting, clinching and riveting

Publicly promoted, application-oriented research and development

- Development and optimisation of new process- and procedure variants
- Examination of material behaviour during welding
- Elaboration of design fundamentals of welded structures

Research and development for industry and skilled trades

- Development and optimisation of application-related procedure variants
- Investigation of material behaviour of customer-specific applications
- Structural design of welded components
- Simulation of temperature distribution, distortion, residual stress and structural condition

Quality assurance

Consulting and auditing

- EN 1090-2 (Execution of steel- and aluminium structures – Technical requirements for steel structures)
- EN 1090-3 (Execution of steel- and aluminium structures – Technical requirements for aluminium structures)
- ISO 17660-1 (Welding of reinforcing steel – Load-bearing welded joints)
- EN 15085-2 (Welding of railway vehicles and components)
- DIN 6701-2 (Adhesive bonding of railway vehicles and parts)
- DIN 2303 (Welding in the field of military engineering)
- ISO 3834 (Quality requirements related to welding technology)
- Applications of NAKS regulations (RUS)
- Applications of ASME regulations (USA)

Construction and fabrication monitoring

- Construction-related monitoring of welding- and corrosion protection operations
- Inspections of steel structures and miscellaneous construction products in the field of construction surveillance

Certification procedures via DVS ZERT GmbH

- ISO 9001 (QM Systems)
- SCC (Safety certificate contractors)
- EN 1090-1 (Execution of steel- and aluminium structures – Requirements for conformity assessment of structural components)

Testing, monitoring and certification (TMC) agency for construction products in metal construction and according to the PED-pressure equipment directive

Testing agency for railway welding consumables

Qualification of welding processes

e.g. ISO 15613, ISO 15614-1 etc.

Expert reports of damage cases and support of questions related to welding technology

Materials engineering

Advice, expert reports and damage analytics

Non-destructive- and destructive tests of base materials and welded joints

Vibration fatigue tests, even on large components

Materialography, analytics and corrosion tests

Material acceptances as well as welder and operator qualification tests

Additional services!

Welding technology software

Main focal points of software development are learning software and software regarding quality assurance and technology.

Process technology

Support of companies regarding manufacturing arrangements for product certification, for equipment testing by experienced experts, for operational installation engineering or support of joining process automation.

Special welding operations

Custom-built installations, repairs and overhaul or the manufacturing of unique items.

Job welding work

Weld technical fabrication of product-series can be performed by SLV Service GmbH.