DAP Deutsches Akkreditierungssystem Prüfwesen GmbH

Anlage zur Akkreditierungsurkunde DPT-ZE-3964.80 vom 12.04.2005
Annex to the accreditation certificate

Inhaber der Akkreditierungsurkunde:
Holder of this accreditation certificate:

Slovenian Institute of Quality and Metrology (SIQ)
Tržaška cesta 2
1000 Ljubljana
Slovenia

for its

Product of Certification Body

Der Geltungsbereich der Akkreditierung erstreckt sich auf die nachstehend genannten Gebiete und zugehörigen Zertifizierungsbereiche:
The scope of this accreditation indicates:

Electromagnetic compatibility:

Basic Standards

IEC 61000-4-2 EN 61000-4-2 DIN EN 61000-4-2 VDE 0847 Teil 4-2	Electromagnetic compatibility (EMC) – Part 4-2: Testing and measuring techniques – Electrostatic discharge immunity test.
IEC 61000-4-3 EN 61000-4-3 DIN EN 61000-4-3 VDE 0847 Teil 4-3	Electromagnetic compatibility (EMC) – Part 4-3: Testing and measuring techniques – Radiated, radio-frequency, electromagnetic field immunity test.
ENV 50204 DIN V ENV 50204 VDE V 0847 Teil 204	Radiated electromagnetic field from digital radio telephones - immunity test.
IEC 61000-4-4 EN 61000-4-4 DIN EN 61000-4-4 VDE 0847 Teil 4-4	Electromagnetic compatibility (EMC) – Part 4: Testing and measuring techniques – Section 4: Electrical fast transient/burst immunity test.
IEC 61000-4-5 EN 61000-4-5 DIN EN 61000-4-5 VDE 0847 Teil 4-5	Electromagnetic compatibility (EMC) – Part 4: Testing and measuring techniques – Section 5: Surge immunity test.
IEC 61000-4-6 DIN EN 61000-4-6 VDE 0847 Teil 4-6	Electromagnetic compatibility (EMC) – Part 4-6: Testing and measuring techniques – Immunity to conducted disturbances, induced by radio-frequency fields.
IEC 6100-4-8 EN 6100-4-8 DIN EN 6100-4-8 VDE 0847 Teil 4-8	Electromagnetic compatibility (EMC) – Part 4: Testing and measurement techniques – Section 8: Power frequency magnetic field immunity test

IEC 61000-4-11 EN 61000-4-11 DIN EN 61000-4-11 VDE 0847 Teil 4-11	Electromagnetic compatibility (EMC) – Part 4: Testing and measuring techniques – Section 11: Voltage dips, short interruptions and voltage variations immunity test.
IEC 61000-3-2 DIN EN 61000-3-2 VDE 0838 Teil 2	Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase).
IEC 61000-3-3 DIN EN 61000-3-3 VDE 0838 Teil 3	Electromagnetic compatibility (EMC) – Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated current ≤ 16 A.

Generic Standards

IEC 61000-6-1 EN 61000-6-1	Electromagnetic compatibility (EMC) – Part 6-1 :Generic standards – Immunity for residential, commercial and light-industrial environments.
IEC 61000-6-2 EN 61000-6-2 DIN EN 61000-6-2 VDE 0839 Teil 6-2	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards - Immunity for industrial environments.
IEC 61000-6-3 EN 61000-6-3 DIN EN 61000-6-3	Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light industrial environments.
IEC 61000-6-4 EN 61000-6-4	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards - Emission standard for industrial environments.

Product family Standards

CISPR 11 EN 55011 DIN EN 55011 VDE 0875 Teil 11	Industrial, scientific and medical (ISM) radio-frequency equipment – Electromagnetic disturbance characteristics – Limits and methods of measurement.
CISPR 14-1 EN 55014-1 DIN EN 55014-1 VDE 0875 Teil 14-1	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission.
CISPR 14-2 EN 55014-2 DIN EN 55014-2 VDE 0875 Teil 14-2	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 2: Immunity.

CISPR 22 EN 55022 DIN EN 55022 VDE 0878 Teil 22	Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement.
CISPR 24 EN 55024 DIN EN 55024 VDE 0878 Teil 24	Information technology equipment – Immunity characteristics – Limits and methods of measurement.
EN 50130-4 DIN EN 50130-4 VDE 0830 Teil 1-4	Alarm systems -- Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder and social alarm systems.
EN 12015 DIN EN 12015	Electromagnetic compatibility - Product family standard for lifts, escalators and passenger conveyors – Emission.
EN 12016 DIN EN 12016	Electromagnetic compatibility - Product family standard for lifts, escalators and passenger conveyors – Immunity.
EN 300 386	Electromagnetic compatibility and radio spectrum matters (ERM); Telecommunication network equipment; Electromagnetic compatibility (EMC) requirements.

Product Standards

IEC 60601-1-2 EN 60601-1-2	Medical electrical equipment; Part 1-2: General Requirements for the safety – Collateral Standard: Electromagnetic compatibility – Requirements and Tests.
EN 45501 DIN EN 45501	Metrological aspects of non-automatic weighing instruments.
EN 50199 DIN EN 50199 VDE 0544 Teil 206	Electromagnetic compatibility (EMC) - Product standard for arc welding equipment.
IEC 61326 EN 61326 DIN EN 61326 VDE 0843 Teil 20	Electrical equipment for measurement, control and laboratory use - EMC requirements.

Other Standards

IEEE Std 299-1997	IEEE Standard Method for Measuring the Effectiveness of Electromagnetic Shielding Enclosures.
IEC 61566	Measurement of exposure to radio-frequency electromagnetic fields – Field strength in the frequency range 100 kHz to 1 GHz.

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IEC 61786	Measurement of low-frequency magnetic and electric fields with regard to exposure of human beings- Special requirements for instruments and guidance for measurements.
EN 50383 [1) 2)] DIN EN 50383 [1) 2)] E VDE 848 Teil 383 [1) 2)]	Basic standard for the calculation and measurement of electromagnetic field strength and SAR related to human exposure from radio base-stations and fixed terminal stations for wireless telecommunication systems (110 MHz –40 GHz).

1) up to frequencies including 18 GHz
2) excluding SAR measurement

Für die fachliche Richtigkeit der Zertifikate verantwortlich:
Technical responsibility for the Certificates:

Mr. Vojko Koron	Certification Manager
Mr. Igor Likar	Deputy Certification Manager
Mr. Gregor Kovač	Head of Laboratory (EMC)

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Safety of machinery:

No	*Standard*	*Year*	*Title*
1.	EN 292-1	1991	Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology.
2	EN 292-2	1991	Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specifications.
3	EN 292-2/A1	1995	Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles – Amendment A1.
4	EN 294	1992	Safety of machinery - Safety distance to prevent danger zones being reached by the upper limbs.
5	EN 349	1993	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body.
6	EN 418	1992	Safety of machinery - Emergency stop equipment, functional aspects - Principles for design.
7	EN 474-1	1994	Earth-moving machinery – Safety – Part1 : General requirements.
8	EN 474-4	1996	Earth-moving machinery – Safety – Part 4: Requirements for backhoe loaders.
9	EN 563	1994	Safety of machinery - Temperatures of touchable surfaces - Ergonomics data to establish temperature limit values for hot surface.
10	EN 574	1996	Safety of machinery - Two-hand control devices - Functional aspects - Principles for design.

No	*Standard*	*Year*	*Title*
11	EN 614-1	1995	Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles.
12	EN 626-2	1996	Safety of machinery – Reduction of risk to health from hazardous substances emitted by machinery – Part 2: Methodology leading to verification procedures.
13	EN 692	1996	Mechanical presses – Safety.
14	EN 693	2000	Hydraulic presses – Safety.
15	EN 774	1996	Garden equipment - Hand held, integrally powered hedge trimmers – Safety.
16	EN 775	1992	Manipulating industrial robots - Safety (ISO 10218:1992, modified).
17	EN 786	1996	Garden equipment - Electrically powered walk-behind and hand-held lawn trimmers and lawn edge trimmers - Mechanical safety.
18	EN 809	1998	Pumps and pump units for liquids – Common safety requirements.
19	EN 811	1996	Safety of machinery - Safety distances to prevent danger zones being reached by the lower limbs.
20	EN 836	1997	Garden equipment – Powered lawnmowers – Safety.
21	EN 847-1	1997	Tools for woodworking - Part 1: Milling tools - Circular saw blades.
22	EN 848-1	1998	Safety of woodworking machines - One side molding machines with rotating tool – Part 1: Single spindle vertical molding machines.
23	EN 848-2	1998	Safety of woodworking machines - One side molding machines with rotating tool - Part 2: Single spindle handfed/integrated fed routing machines.
24	EN 848-3	1999	Safety of woodworking machines - One side molding machines with rotating tool - Part 3: Numerical control (NC) boring machines and routing machines.
25	EN 859	1997	Safety of woodworking machines - Handfed surface planing machines.
26	EN 860	1997	Safety of woodworking machines - One side thickness planing machines.
27	EN 861	1997	Safety of woodworking machines - Surface planing and thicknessing machines.

No	*Standard*	*Year*	*Title*
28	EN 894-1	1997	Safety of machinery – Ergonomics requirements for the design of display and control actuators – Part 1: General principles for human interactions with displays and control actuators.
29	EN 894-2	1997	Safety of machinery – Ergonomics requirements for the design of display and control actuators - Part 2: Displays.
30	EN 894-3	2000	Safety of machinery – Ergonomics requirements for the design of display and control actuators - Part 3: Control actuators
31	EN 940	1997	Safety of woodworking machines - Combined woodworking machines.
32	EN 954-1	1996	Safety of machinery – Safety-related parts of control systems – Part 1: General principles for design.
33	EN 953	1997	Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards.
34	EN 982	1996	Safety of machinery - Safety requirements for fluid power systems and their components – Hydraulics.
35	EN 983	1996	Safety of machinery - Safety requirements for fluid power systems and their components – Pneumatics.
36	EN 999	1998	Safety of machinery – The positioning of protective equipment in respect of approach speeds of parts of the human body.
37	EN 1012-2	1996	Compressors and vacuum pumps - Safety requirements - Part 2: Vacuum pumps.
38	EN 1012-1	1996	Compressors and vacuum pumps - Safety requirements - Part 1: Compressors.
39	EN 1037	1995	Safety of machinery - Prevention of unexpected start up.
40	EN 1050	1996	Safety of machinery - Principles for risk assessment.
41	EN 1088	1995	Safety of machinery - Interlocking devices associated with guards - Principles for design and selection.
42	EN 1152	1994	Tractors and machinery for agriculture and forestry – Guards for power take-off (PTO) guards – Wear and strength test.
43	EN 1299	1997	Mechanical vibration and shock – Vibration isolation of machines - Information for the application of source isolation.

No	*Standard*	*Year*	*Title*
44	EN 13510	2000	Earth-moving machinery – Roll-over protective structures – Laboratory tests and performance requirements (ISO 3471:1994).
45	ISO 8862-2 A1	1992 1999	Hand-held portable power tools - Measurement of vibrations at the handle - Part 2: Chipping hammers and riveting hammers.
46	ISO 8862-3 A1	1992 1999	Hand-held portable tools - Measurement of vibrations at the handle – Part 3: Rock drills and rotary hammers.
47	ISO 8862-4	1994	Hand-held portable power tools - Measurement of vibrations at the handle - Part 4: Grinders.
48	ISO 8862-5 A1	1992 1999	Hand-held portable power tools - Measurement of vibrations at the handle - Part 5: Pavement breakers and hammers for construction work.
49	ISO 8862-6	1994	Hand-held portable power tools - Measurement of vibrations at the handle - Part 6: Impact drills.
50	ISO 8862-7	1997	Hand-held portable power tools - Measurement of vibrations at the handle - Part 7: Wrenches, screwdrivers and nut runners with impact, impulse or ratchet action.
51	ISO 8862-8	1997	Hand-held portable power tools - Measurement of vibrations at the handle - Part 8: Polishers and rotary, orbital and random orbital sanders.
52	ISO 8862-9	1996	Hand-held portable power tools - Measurement of vibrations at the handle - Part 9: Rammers.
53	ISO 8862-10	1998	Hand-held portable power tools - Measurement of vibrations at the handle - Part 10: Nibblers and shears.
54	ISO 8862-11 A1	1999 2001	Hand-held portable power tools - Measurement of vibrations at the handle - Part 11: Fastener driving tools.
55	ISO 8862-12	1997	Hand-held portable power tools - Measurement of vibrations at the handle - Part 12: Saws and files with reciprocating action and saws with oscillating or rotating action.
56	ISO 8862-13	1997	Hand-held portable power tools - Measurement of vibrations at the handle - Part 13: Die grinders.
57	EN 1501-1	1998	Refuse collection vehicles and their associated lifting devices - General requirements and safety requirements - Part 1: Rear-end loaded refuse collection vehicles.
58	EN 1570	1998	Safety requirements for lifting tables.
59	EN 1807	1999	Safety of woodworking machines - Band sawing machines.

No	*Standard*	*Year*	*Title*
60	EN 1870-1	1999	Safety of woodworking machines - Circular sawing machines - Part 1: Circular saw benches (with and without sliding table) and dimension saws.
61	EN 1870-2	1999	Safety of woodworking machines - Circular sawing machines - Part 2: Horizontal beam panel saws and vertical panel saws.
62	EN 1870-3	2001	Safety of woodworking machines – Circular sawing machines – Part 3: Down cutting cross-cut saws and dual purpose down cutting/circular saw benches.
63	EN 1870-4	2001	Safety of woodworking machines – Circular sawing machines – Part 4: Single and multi-blade rip sawing machines with manual loading and/or unloading.
64	EN 1870-5	2002	Safety of woodworking machines – Circular sawing machines – Part 5: Combined circular saw bench/up cutting cross cut saw.
65	EN 1870-6	2002	Safety of woodworking machines – Circular sawing machines – Part 6: Firewood sawing machine/circular saw bench with manual loading and/or unloading.
66	EN 1870-7	2001	Safety of woodworking machines - Circular sawing machines - Part 7: Circular log sawing machine with integrated feeding table and manual loading and/or unloading.
67	EN 1870-8	2001	Safety of woodworking machines - Circular sawing machines - Part 8: Single blade edging circular rip sawing machines with power driven saw unit and manual loading and/or unloading.
68	EN 1974	1998	Food processing machinery - Slicing machines - Safety and hygiene requirements.
69	ISO 3475		Acoustics - Determination of sound power levels of noise sources - Precision methods for anechoic and semi anechoic rooms.
70	EN ISO 3743-1	1995	Acoustics - Determination of sound power levels of noise sources - Engineering methods for small, movable sources in reverberant fields - Part 1: Comparison method for hard-walled test rooms (ISO 3743-1:1994).
71	EN ISO 3743-2	1996	Acoustics - Determination of sound power levels of noise sources using sound pressure - Engineering methods for small, movable sources in reverberant fields - Part 2: Methods for special reverberation test rooms (ISO 3743-2:1994).

No	*Standard*	*Year*	*Title*
72	EN ISO 3744	1995	Acoustics - Determination of sound power levels of noise sources using sound pressure - Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994).
73	EN ISO 3746	1995	Acoustics - Determination of sound power levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746:1995).
74	EN ISO 4871	1996	Acoustics - Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996).
75	ISO 7960		Airborne noise emitted by machine tools - Operating conditions for woodworking machines.
76	EN ISO 9614-1	1995	Acoustics - Determination of sound power levels of noise sources using sound intensity - Part 1: Measurements at discrete points (ISO 9614-1:1993).
77	EN ISO 11201	1995	Acoustics - Noise emitted by machinery and equipment - Measurement of emission sound pressure levels at a work station and at other specified positions - Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995).
78	EN ISO 11202	1995	Acoustics - Noise emitted by machinery and equipment - Measurement of emission sound pressure levels at a work station and at other specified positions - Survey method in situ (ISO 11202:1995).
79	EN ISO 11203	1995	Acoustics – Noise emitted by machinery and equipment – Determination of emission sound pressure levels at a work station and at other specified positions from the sound power level (ISO 11203:1995).
80	EN ISO 11204	1995	Acoustics - Noise emitted by machinery and equipment - Measurement of emission sound pressure levels at a work station and at other specified positions - Method requiring environmental corrections (ISO 11204:1995).
81	EN ISO 11688-1	1998	Acoustics - Recommended practice for the design of low-noise machinery and equipment - Part 1: Planning (ISO/TR 11688-1:1995).
82	EN ISO 11806	1997	Agricultural and forestry machinery – Portable hand-held combustion engine driven brush cutters and grass trimmers – Safety (ISO 11806:1997).
83	PrEN 12965	1997	Tractors and machinery for agriculture and forestry – Power take-off drive shafts and their guards – Safety.

No	*Standard*	*Year*	*Title*
84	EN 60204-1	1997	Safety of machinery – Electrical equipment -Part 1:General requirements.
85	EN 60529	1991	Degrees of protection provided by enclosures (IP Code).
86	EN 60825-1	1994	Safety of laser products -- Part 1: Equipment classification, requirements and user's guide.
87	EN 61029-1	2000	Safety of transportable motor operated tools - Part 1: General requirements.
88	EN 61310-1	1995	Safety of machinery – Indication, marking and actuation – Part 1: Requirements for visual, auditory and tactile signals.
89	EN 61310-2	1995	Safety of machinery – Indication, marking and actuation – Part 2: Requirements for marking.
90	EN 61310-3	1999	Safety of machinery – Indication, marking and actuation – Part 3: Requirements for the location and operation of actuators.
91	EN 61496-1	1997	Safety of machinery – Electro-sensitive protective equipment – Part 1: General requirements and tests.
92	EN ISO 12100-1	2003	Safety of machinery. Basic concepts, general principles for design. Basic terminology and methodology
93	EN ISO 12100-2	2003	Safety of machinery. Basic concepts, general principles for design. Technical principles

Für die fachliche Richtigkeit der Zertifikate verantwortlich:
Technical responsibility for the Certificates:

Mr. Vojko Koron	Certification Manager
Mr. Igor Likar	Deputy Certification Manager
Mr. Anton Možina	Senior Test Engineer
Mr. Otmar Močnik	Test Engineer
Mr. Janez Furlan	Head of Laboratory (Machinery)
Mr. Gregor Kovač	Head of Laboratory (EMC)

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