



TENDER DOCUMENTATION FOR SELECTION OF THE CONTRACTOR

**Refurbishment of the Combined Heat and Power Plant
in Mladá Boleslav**

Business Package OB 2

BOILER HOUSES

VOLUME III

TECHNICAL REQUIREMENTS

Annex A8 Standards

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1 INTRODUCTION

1.1 General Part

This Annex contains the CLIENT's requirements regarding the application of Czech legal regulations, regulations of the government of the Czech Republic, Czech technical standards ČSN, internal control documentation of the CLIENT, technical standards of the international organizations IEC and ISO which are relevant for all areas related to the WORK execution. These are requirements not stated explicitly in other parts and chapters, such as environmental protection, waste management, personnel qualifications, etc. These regulations are referred to collectively as "Regulations relevant to the WORK execution".

The regulations relevant to the WORK execution listed in this Chapter contain requirements that are generally recognized in the national and international context as requirements that must be met to ensure an achievable technical level of the Work, adequate to the current state of knowledge and technical progress. Where newly supplied equipment follows existing equipment that has been manufactured and installed according to standards that are currently invalid, the CONTRACTOR will take such measures to ensure compliance between the existing and new equipment.

The priority of regulations relevant to the WORK Execution

The priority of regulations relevant to the WORK execution is generally determined as follows (from highest one to lowest one):

- Czech legal regulations, i.e., laws, decrees and regulations of the Czech Republic Government,
- Czech technical standards ČSN and internal technical standards (hereinafter ITS),
- Technical standards of international organizations IEC and ISO.

All Czech technical standards of ČSN are non-binding - as it is defined by Act No. 22/1997 Coll., but their bindingness may be stipulated otherwise (e.g. by a Work Contract between legal entities, internal regulations of the Quality Management system (QMS), according to ISO 9000, etc.).

The obvious requirement is to respect all existing legal regulations and technical regulations issued pursuant to § 22 of Act No. 22/1997 Coll. The separate chapter consists of the application of the Government Regulation to Act No. 22/1997 Coll.

In the absence of a ČSN standard, the CONTRACTOR is entitled to use a foreign standard.

The following list of standards and regulations is not complete.

1.2 List of abbreviations

Note: Sorted alphabetically according to the Czech version.

Abbreviation	Text
AŘ	Rules of administrative procedure
I&C	Automated management system of technological process
ATEX	ATEX Directives (Atmosphères Explosibles) for equipment and protective systems intended for use in explosion hazards areas
BAT	Best Available Techniques
BEP	BIM Execution Plan
BIM	Building Information Modelling/Management
RR	Routine repair
OHS	Occupational safety and health
CE	Conformité européenne

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Abbreviation	Text
CCTV	Closed Circuit Television
CEMS	Emission monitoring system
CDE	Common data Environment
No.	Number
CR	Czech Republic
ČSN	Czech technical standard
DOSS	State administration authorities concerned
DPS	Documents required for building construction
DSP	Documents required for building permit
DSPS	Documents of as-built condition of the building construction
Wch	Wood chips
WRW	Waste rainwater
EIA	Environmental impact assessment
EIR	Exchange Information Requirements
EMC	Electromagnetic compatibility
EN	European standards
EFAS	Electronic fire alarm system
FAC	Final Acceptance Certificate
FAT	Factory Acceptance Test
FC	Frequency converter
GO	General overhaul
H	Hold point
HMG	Time plan
HAZOP	Hazard and Operability Study
HW	Hardware
IAPWS	International Association for the Properties of Water and Steam
IEC	Electrotechnical Commission
IFC	Industry Foundation Classes/format
IO	Engineering object
I/O	Input/output signals
ISO	International organization for standardization
IT	Information Technology
ITS	Škoda's internal technical standards
ITE	Individual tests
k.ú.	Cadastral territory
KV	Comprehensive testing
LV	Low voltage
FWT	Feed water tank
NV	Government decree
OB	Business package
SS	Steel structure
parc.No.	Parcel number
PAC	Preliminary Acceptance Certificate

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Abbreviation	Text
PED	Pressure Equipment Directive
P&I	Piping and instrument diagram
BC	Belt conveyor
PD	Implementation documentation
SIT	Schedule of inspections and tests
POBC	Plan and organization of the building construction
PRE-BEP	Design plan of BIM implementation
PS	Operational file
SCR	Selective catalytic reduction
CDM	Combustible dust mixture
SEE	Stable extinguishing equipment
SIL	Safety Integrity Level
I&C	Instrumentation and Control system
SNCR	Selective non-catalytic reduction
SNIM	3D model non-graphic information standard
SO	Building object
CfW	Contract for work
SP	Building permit
QMS	Quality management system
SW	Software
CS	Control system
SP	Solid pollutants
ÚSES	Territorial system of landscape ecological stability
HV	High voltage
VOC	Volatile organic compound
ACS	Air-conditioning system
HP	High pressure
W	Witness Point
WF	Workflow

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2 LEGISLATION

2.1 Acts

Act No. 90/2016 Coll. On conformity assessment of specified products when made available on the market

Act No. 183/2006 Coll. Act on Spatial planning and Building (Building Act)

Act No.256/2013 Coll. On Cadastre of Real Estate (Cadastral Law)

Act No.133/1985 Coll. Act of the Czech National Council on Fire protection

Act No.258/2000 Coll. On Protection of Public Health and amendment to some Related Acts

Act No.254/2001 Coll. On Water and amendments to Some Acts (Water Act)

Act No. 541/2020 Coll. On waste

Act No. 262/2006 Coll. Labour Code

Act No. 250/2021 Coll. Act on occupational safety in connection with the operation of reserved technical equipment and on the amendment of related laws

Act No. 167/2008 Coll. The Act on the Prevention of Environmental Damage and its Remedying and on the Amendments on Some Laws

Act No. 455/19910 Coll. Act on Trades Licencing (Trades Act)

Act No.360/1992 Coll. Act of the Czech National Council on professional practices of certified architects and on professional practices of certified engineers and technicians active in construction (Authorization Act)

Act No. 163/1998 Coll. Act amending Act No. 133/1985 Coll., on fire protection, as amended

Act No. 71/2000 Coll. Act Amending Act No. 22/1997 Coll., on Technical Requirements for Products and on Amendments and Supplements to Certain Acts, and Certain Other Acts

Act No. 237/2000 Coll. Act No. 237/2000 Coll. Act amending Act No. 133/1985 Coll., on fire protection, as amended

Act No.17/1992 Coll. The Environmental Act

Act No. 22/1997 Coll. On the Technical Requirements for Products, and on a change and addition to certain laws

Act No. 102/2001 Coll. On General Product Safety on Amendment to Certain Acts, as amended

Act No. 477/2001 Coll. On packaging, amendments to some other Acts (Packages Act)

Act No. 49/1997 Coll. on civil aviation and amending and supplementing the Act No. 455/1991 Coll., on Trades Licencing (Trades Act), as amended

Act No. 224/2015 Coll. Act on the Prevention of Serious Accidents Caused by Selected Hazardous Chemical Substances or Chemical Mixtures and on Amendments to Act No. 634/2004 Coll., on Administrative Fees, as amended (Act on the Prevention of Serious Accidents)

Act No. 309/2006 Coll on further requirements with regard to occupational safety and health ensuring safety and health protection during activities or providing services outside employment relationship (Act on ensuring additional conditions for safety and health protection at work)

Act No. 114/1992 Coll. Act of the Czech National Council on Nature and Landscape Conservation

Act No.100/2001 Coll. Environmental Impact Assessment and amending related Acts (EIA Environmental Impact Assessment)

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Act No. 39/2015 Coll. Act Amending Act No. 100/2001 Coll., on Environmental Impact Assessment and Amending Certain Related Acts (Environmental Impact Assessment Act), as amended, and other related Acts

Act No. 477/2001 Coll. on packaging, amendments to some other acts(Packaging Act)

Act No. 350/2011 Coll. on Chemical Substances and Chemical Mixtures and the Amendment of Certain Acts (Chemical Act)

Act No. 406/2000 Coll. Energy Management Act

Act No. 201/2012 Coll. on Air Protection

Act No. 100/2013 Coll. Act Amending the Act No. 22/1997 Coll., on Technical Requirements for Products and on Amendments and Supplements to Certain Acts, as amended

2.2 Decrees and Regulations

Decree No. 499/2006 Sb. On construction Documentation

Decree No. 63/2013 Coll. The Decree amending The Decree No. 503/2006 Coll., on more detailed regulation of planning proceedings, public contracts and territorial measures

Decree No. 146/2008 Coll. on the scope and contents of the project documentation of the transport constructions

Decree No. 55/1996 Coll. Decree of the Czech Mining Office on requirements to ensure safety and health protection at work and operational safety in underground mining activities

Decree No. 369/2004 Coll. Decree on the design, implementation and evaluation of geological works, notification of risk geofactors and on the procedure for calculating reserves of exclusive deposits

Decree No. 206/2001 Coll. Decree of the Ministry of the Environment on certification of professional qualification to project, implement and evaluate geological works.

Decree No. 282/2001 Coll. Decree of the Ministry of the Environment on the registration of geological works

Decree No. 26/1989 Coll. Decree of the Czech Mining Office on safety and health protection at work and operational safety in mining activities and activities carried out on surface mining

Decree No. 262/2000 Coll. Decree of the Ministry of Industry and Trade, which ensures the uniformity and correctness of gauges and measurements

Decree No. 177/1995 Coll. Decree of the Ministry of Transport, which issues the construction, and technical regulations for railways

Decree No. 246/2001 Coll. Decree of the Ministry of the Interior on determining the conditions of fire safety and the performance of state fire supervision (Decree on fire prevention)

Decree No. 23/2008 Coll. Decree on technical conditions of fire protection of building Construction

Decree No.87/2000 Coll. - laying down conditions for fire safety during welding and heating of bitumen in melting pots.

Decree No.77/1965 Coll. Decree of the Ministry of Construction on training, competences, and registration of attendance to construction machinery

Decree No.48/1982 Coll. Decree of the Czech Occupational Safety Office on basic requirements to ensure the safety of work and technical equipment

Decree No. 202/1999 Coll. Decree of the Ministry of the Interior laying down the Technical Conditions for Fire Doors, Smoke Resistant Doors and Smoke Resistant Fire Doors

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Decree No. 252/2004 Coll. – laying down the health requirements for drinking and hot water and the frequency and extent of drinking water checking

Decree No. 264/2020 Coll. Decree on Energy performance of buildings

Decree No.193/2007 Coll. laying down the details of the efficiency of energy use in the distribution of thermal energy and the internal distribution of thermal energy and cooling

Decree No. 441/2012 Coll. on establishing the minimum efficiency of energy use in the production of electricity and thermal energy

Decree No. 268/2009 Coll. on the technical requirements for construction

Decree No. 501/2006 Coll. on general requirements for the use of Territory

Decree No. 8/2021 Coll. on Waste Catalogue and the assessment of waste properties (Waste Catalogue)

Decree No.415/2012 Coll. on the admissible level of pollution and identification thereof and on implementation of certain other provisions of the Air Protection Act

Decree No. 23/2008 Coll. on technical conditions for fire protection of buildings

Decree No. 20/2011 Coll. Decree amending Decree No. 501/2006 Coll., on general requirements for the use of Territory, as amended

Decree No. 409/2005 Coll. Decree on hygiene requirements for products coming into direct contact with water and the water

2.3 Government Regulations

Government Regulation No.172/2001 Coll. on implementation of the Act on Fire Protection

Government Regulation No. 362/2005 Sb. Government regulation on detailed requirements regarding safety and health protection when working at workplaces with the risk of falling from a height or into a depth

Government Regulation No. 591/2006 Coll. on detailed requirements regarding safety and health protection during work on construction sites

Government Regulation No. 361/2007 Coll. determining conditions of occupational health protection

Government Regulation No. 119/2016 Coll. on conformity assessment of simple pressure vessels when they are made available to the market

Government Regulation No.116/2016 Coll. on conformity assessment of equipment and protective system for use in potentially explosive atmosphere

Government Regulation No. 176/2008 Coll. on technical requirements for machinery

Government Regulation No. 272/2011 Coll. on health protection from the adverse effects of noise and vibration

Government Regulation No. 401/2015 Coll. on the indicators and values of permissible pollution of surface water and wastewater, requirements for permits for discharge of waste water into surface water and sewers, and sensitive areas

Government Regulation No. 219/2016 Coll. Government regulation on assessment of conformity of pressure equipment when it is made available to the market

Government Regulation No. 122/2016 Coll. on conformity assessment of lift and their safety components

Government Regulation No. 201/2010 Coll. on the method of recording accidents, reporting and sending accident records

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Government Regulation No. 390/2021 Coll. on more detailed conditions for the provision of personal protective work equipment, washing, cleaning and disinfecting agents

Government Regulation No. 406/2004 Coll. on more detailed requirements for ensuring safety and health protection when working in an environment with a risk of explosion

Government Regulation No. 101/2005 Coll. Government Regulation No. 101/2005 Coll. on more detailed requirements for the workplace and work environment

Government Regulation No. 173/1997 Coll. laying down selected products for the conformity assessment

Government Regulation No. 179/2001 Coll. establishing technical requirements for refrigeration equipment

Government Regulation No. 9/2002 Coll. establishing technical requirements for products in terms of noise emissions

Government Regulation No. 163/2002 Coll. lays down technical requirements for selected construction products

Government Regulation No 118/2016 Coll. on assessment of conformity of electrical equipment designed for use within certain limits when delivered to the market

Government Regulation No. 63/2018 Coll. on the cancellation of certain government regulations in the area of technical requirements for products

Government Regulation No. 120/2016 Coll. on assessment of measuring instruments conformity, when they are delivered to the market

Government Regulation No. 117/2016 Coll. on assessment of products conformity from the point of view of electromagnetic compatibility when they are delivered to the market

Government Regulation No 375/2017 Coll. on the appearance, location and execution of safety signs and markings and the introduction of signals

3 STANDARDS

3.1 Machinery standards

ČSN 070000	Terminology of steam and hot waters boilers
ČSN 070008	Boiler Passport
ČSN 070010	Basic parameters and capacities of stationary steam boilers
ČSN 070020	Steam boilers. Types and basic parameters
ČSN 070302	Steam generators acceptance tests
ČSN 070305	Evaluation of boiler losses
ČSN 070414	Safety technique. Steam and hot water boilers. General requirements for strength calculation
ČSN 070416	Steam and hot liquid boilers. Calculation of strength by cyclic loading
ČSN 070620	Construction and equipment of steam and hot water boiler
ČSN 070623	Technical documentation of boilers
ČSN 070624	Installation of boilers and boiler equipment
ČSN 070703	Gas boiler houses with gaseous fuel equipment
ČSN 070710	Operation, attendance and maintenance of steam and hot water boilers

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ČSN 070751 ČSN 070751 Safety technology. Steam and hot water boilers. Markings requirements
 ČSN EN 267 Forced draught burners for liquid fuels
 ČSN ISO 23550 Safety and control devices for gas and/or oil burners and appliances – General requirements
 ČSN EN 12514 Components for supply systems for consuming units with liquid fuels
 ČSN 077001 Ash handling systems: Basic requirements
 ČSN 077403 Water and steam for steam power equipment with working pressure of 8 MPA and higher
 ČSN EN 45510 Guide for procurement of power station plants, equipment and systems
 EN 12952 EN 12952 Water-tube boilers and auxiliary installations
 ČSN 078304 Pressure vessels for transport of gas – Operation rules
 ČSN EN 1333 Flanges and their joints – Pipework components – Definition and selection of PN
 ČSN 130010 Piping and fitting. Nominal pressure and working overpressure
 ČSN EN 13480 Metal industrial piping
 ČSN EN 10 216 Seamless steel pipes for pressure purposes
 ČSN EN 10 217 Welded steel pipes for pressure purposes
 ČSN EN 10 253 Butt weld pipe fittings
 ČSN EN 10 204 Metallic products. Types of inspection documents
 ČSN 130072 Piping. Marking of pipelines in plants according to flowing liquids
 ČSN 130100 Safety technique. Pipes for steam and hot water. Classification – Category
 ČSN 130104 Safety technique. Pipes for steam and hot water. Documentation
 ČSN 130420 Piping. Surface protection of pipelines for transport and storage
 ČSN EN 13445 Unfired pressure vessels
 ČSN EN 764 Pressure equipment
 ČSN EN 60721 Classification of environmental conditions
 ČSN ISO 7919 Mechanical vibration – Evaluation of machine vibration by measurements on rotating shafts
 ČSN ISO 10816 Mechanical vibration – Evaluation of machine vibration by measurements on non-rotating shafts
 ČSN EN 12186 Gas supply systems. Gas pressure regulating stations for transmission and distribution – Functional requirements
 ČSN EN 15001 Gas infrastructure – Gas installation pipework with an operating pressure greater than 0.5 bar for industrial installations and greater than 5 bar for industrial and non-industrial installations
 TPG 703 01 Industrial gas pipelines
 TPG 605 02 Gas pressure regulating stations
 ČSN EN 1012 Compressors and vacuum pumps – Safety requirements
 ISO 1217 Positive displacement compressors – Acceptance tests
 ČSN ISO 8573-1 Compressed air - Part 1: Contaminants and purity classes
 ČSN EN 60079 Explosive atmospheres

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ČSN EN ISO 9906 Rotodynamic pumps – Acceptance hydraulic performance tests – Grades 1, 2 and 3

ČSN EN 14 181 Stationary sources of emissions – Quality assurance of automated measuring systems

ČSN EN ISO 14956 Air quality – Evaluation of the suitability of measurement procedure by comparison with a required measurement of uncertainty

ČSN 73 0548 Calculation of the thermal load of air-conditioned spaces

ČSN EN 14336 Heating systems in buildings – Installation and commissioning of water-based heating systems

ČSN EN 145111 Air conditioners, liquid chilling packages and heat pumps for spaces heating and cooling and process coolers with electrically driven compressors – Part 1: Terms and definitions

ČSN EN 13771-2 Compressors and condensing units for refrigeration - Performance measurement and test methods - Part 2: Condensing units

ČSN EN 15218 Air conditioners and liquid chilling packages with evaporatively cooled condenser, and with electrically driven compressors for space cooling – Terms, definitions, test conditions, test methods and requirements

ČSN EN 12102 Air conditioners, liquid cooling packages, heat pumps, process chillers and dehumidifiers with electrically driven compressors - Determination of sound power level

ČSN EN ISO 18 125 Calorific value of biofuels

ČSN 44 1315 Solid fuels – Storage

3.2 Structural

ČSN EN 1990 Eurocode: Principles of structural design

ČSN EN 1991-1-1 Eurocode 1: Actions on structures – Part 1-1: General actions – Densities, self-weight, and imposed loads for buildings

ČSN EN 1991-1-2 Eurocode 1: Actions on structures – Part 1-2: General actions – Actions on structures exposed to fire

ČSN EN 1991-1-3 Eurocode 1: Actions on structures –Part 1-3: General actions – Snow load

ČSN EN 1991-1-4 Eurocode 1: Actions on structures – Part 1-4: General actions – Wind load

ČSN EN 1991-1-5 Eurocode 1: Actions on structures – Part 1-5: General actions – Temperature load

ČSN EN 1991-1-6 Eurocode 1: Actions on structures – Part 1-6: General actions – Load during execution

ČSN EN 1991-1-7 Eurocode 1: Actions on structures – Part 1-7: General actions – Extraordinary loads

ČSN EN 1991-3 Eurocode 1: Actions on structures – Part 3: Loads from cranes and machinery

ČSN EN 1992-1-1 Eurocode 2: Design of concrete structures– Part 1-1: General rules and rules for buildings

ČSN EN 1992-1-2 Eurocode 2: Design of concrete structures – Part 1-2: General rules – Structural fire design

ČSN EN 1992-3 Eurocode 2: Design of concrete structures – Part 3: Liquid retaining and containment structures

ČSN EN 1993-1-1 Eurocode 3: Design of steel structures – Part 1-1: General rules and rules for buildings

ČSN EN 1993-1-2 Eurocode 3: Design of steel structures – Part 1-2: General rules – Structural fire design

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ČSN EN 1993-1-3 Eurocode 3: Design of steel structures – Part 1-3: General rules – Supplementary rules for cold formed members and sheeting

ČSN EN 1993-1-4 Eurocode 3: Design of steel structures - Part 1-4: General rules – Supplementary rules for stainless steels

ČSN EN 1993-1-5 Eurocode 3: Design of steel structures – Part 1-5: Buckling walls

ČSN EN 1993-1-6 Eurocode 3: Design of steel structures – Part 1-6: Strength and Stability of Shell Structures

ČSN EN 1993-1-7 Eurocode 3: Design of steel structures – Part 1-7: Strength and Stability of planar plated structures subject to out of plane loading

ČSN EN 1993-1-8 Eurocode 3: Design of steel structures – Part 1-8: Design of joints

ČSN EN 1993-1-9 Eurocode 3: Design of steel structures – Part 1-9: Fatigue

ČSN EN 1993-1-10 Eurocode 3: Design of steel structures – Part 1-10: Material toughness and through-thickness properties

ČSN EN 1993-1-11 Eurocode 3: Design of steel structures – Part 1-11: Design of tension components made of steel

ČSN EN 1993-1-12 Eurocode 3: Design of steel structures - Part 1-12: Supplementary rules for high-strength steels up to class S 700th

ČSN EN 1993-2 Eurocode 3: Design of steel structures – Part 2: Steel bridges

ČSN EN 1993-3-1 Eurocode 3: Design of steel structures – Part 3-1: Masts and stacks – Masts

ČSN EN 1993-3-2 Eurocode 3: Design of steel structures - Part 3-2: Towers, masts and stacks

ČSN EN 1993-4-1 Eurocode 3: Design of steel structures – Part 4-1: Silos

ČSN EN 1993-4-2 Eurocode 3: Design of steel structures – Part 4-2: Tanks

ČSN EN 1993-4-3 Eurocode 3: Design of steel structures – Part 4-3: Piping

ČSN EN 1993-5 Eurocode 3: Design of steel structures – Part 5: Piles and sheet piles made of steel

ČSN EN 1993-6 Eurocode 3: Design of steel structures – Part 6: Crane supporting structures

ČSN EN 1994-1-1 Eurocode 4: Design of composite steel and concrete structures – Part 1-1: General rules and rules for buildings

ČSN EN 1994-1-2 Eurocode 4: Design of composite steel and concrete structures – Part 1-2: General rules and structural fire design

ČSN EN 1994-2 Eurocode 4: Design of composite steel and concrete structures – Part 2: General rules and rules for bridges

ČSN EN 1995-1-1 Eurocode 5: Design of timber structures – Part 1-1: General rules – Common rules and rules for buildings

ČSN EN 1995-1-2 Eurocode 5: Design of timber structures – Part 1-2: General rules –Structural fire design

ČSN EN 1995-2 Eurocode 5: Design of timber structures – Part 2: Bridges

ČSN EN 1996-1-1 Eurocode 6: Design of masonry structures – Part 1-1: General rules for reinforced and unreinforced structures

ČSN EN 1996-1-2 Eurocode 6: Design of masonry structures – Part 1-2: General rules – Structural fire design

ČSN EN 1996-2 Eurocode 6: Design of masonry structures – Part 2: Design considerations, selection of materials and execution of masonry

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ČSN EN 1996-3 Eurocode 6: Design of masonry structures – Part 3: Simplified calculation methods for unreinforced masonry structures

ČSN EN 1997-1 Eurocode 7: Geotechnical design – Part 1: General rules

ČSN EN 1997-2 Eurocode 7: Geotechnical design – Part 2: Ground Investigation and testing

ČSN EN 1998-1 Eurocode 8: Design of structures for earthquake resistance – Part 1: General rules, seismic actions and rules for buildings

ČSN EN 1998-2 Eurocode 8: Design of structures for earthquake resistance – Part 2: Bridges

ČSN EN 1998-3 Eurocode 8: Design of structures for earthquake resistance – Part 3: Assessment and retrofitting of buildings

ČSN EN 1998-4 Eurocode 8: Design of structures for earthquake resistance – Part 4: Silos, tanks, pipelines

ČSN EN 1998-5 Eurocode 8: Design of structures for earthquake resistance – Part 5: Foundations, retaining structures and geotechnical aspects

ČSN EN 1998-6 Eurocode 8: Design of structures for earthquake resistance - Part 6: Towers, masts and stacks

ČSN EN 1505 Ventilation for buildings – Sheet metal air ducts and fitting with rectangular cross section – Dimensions

ČSN EN 1506 Ventilation for buildings – Sheet metal air ducts and fitting with circular cross-section – Dimensions

ČSN 72 1006 Methods of tests for soils for civil engineering purposes

ČSN EN 445 Injection mortar for switching cables – Test methods

ČSN 73 0210 Geometric accuracy in construction. Terms of execution. Part 1: Fitting accuracy

ČSN ISO 7737 Geometric accuracy in construction. Tolerances for building. Presentation of dimensional accuracy data

ČSN ISO 7077 Geometrical accuracy in building industry. Measuring methods for building – General principles and procedures for the verification of dimensional compliance

ČSN 73 2480 Execution and technical inspection of structures assembled of precast elements

ČSN 73 0602 Protection of buildings against radon and gamma radiation from building materials

ČSN 73 5105 Industrial building for production purposes

ČSN 73 1901 Designing of roofs

ČSN 73 0540 Thermal protection of buildings

ČSN 73 4130 Stairs and inclined ramps

ČSN 74 3282 Fixed metal ladders

ČSN 74 4505 Floors

ČSN 74 6077 Windows and external pedestrian doorsets – Requirements for installation

ČSN 74 6078 Windows and external doors – Classes and levels of properties according to suitability of use

ČSN 73 0600 Protection of building against water. Roofing and waterproofing

ČSN 743305 Protective railings

ČSN 746930 (746930) Steel floor gratings. Common provisions

ČSN EN 13119 Light perimeter casings

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ČSN 73 2603: Steel bridge structures – Supplementary specifications for execution, quality control and inspections

ČSN 73 2604: Steel structures – Inspection and maintenance of steel structures of land and engineering buildings

3.3 Electrical and I & C Part

ČSN EN ISO 9001 Quality management systems – Requirements

ČSN EN ISO 9000 Quality management systems – Basic principles and vocabulary

ČSN 33 2000-1 ed.2 ČSN 33 2000-1 ed.2 Low-voltage electrical installation – Part 1: Basic aspects, determination of basic characteristics,

ČSN 33 2000-4-41 Ed. 3 Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock

ČSN 33 2000-4-43 Ed. 2 Low-voltage electrical installations - Part 4-43: Safety - Protection against overcurrent

ČSN 33 2000-4-443 Ed. 3 Low-voltage electrical installations – Part 4-44: Protection for Safety – Protection against voltage disturbances and electromagnetic interference - Chapter 443: Protection against atmospheric or switching overvoltage

ČSN 33 2000-5-51 Ed. 3 Low-voltage electrical installations - Part 5-51: Selection and erection of electrical equipment – Common rules

ČSN 33 2000-5-52 Ed. 2 Low-voltage electrical installation – Part 5-52: Selection and erection of electrical equipment – Wiring system

ČSN 33 2000-5-54 Ed. 3 Low-voltage electrical installation – Part 5-54: Selection and erection of electrical equipment – Earthing arrangement and protective conductors

ČSN 33 2000-7-729 Low-voltage electrical installation – Part 7-729: Single-purpose equipment for special installations or locations – Operating or maintenance gangways

ČSN 33 2000-7-704 Ed. 3- Low-voltage electrical installation – Part 7-704: Requirement for special installations or locations – Construction and demolition site installation

ČSN 34 1090 Ed.2 – Low-voltage electrical installation – Regulations for provisional electrical installations

ČSN EN 60664-1 Ed. 2 Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests

ČSN EN 60909-0 ed. 2 Short-circuit currents in three-phase AC systems - Part 0: Calculation of currents

ČSN EN 61660-1 Short-circuit currents in d.c. auxiliary installations in power plants and substations – Part 1: Calculation of short-circuit currents

ČSN EN 61000-2-4 Ed.2 Electromagnetic compatibility (EMC) - Part 2-4: Environment – Compatibility levels in industrial plants for low-frequency conducted disturbances

ČSN EN 61140 Ed.3 Protection against electric shock – Common aspects for installation and equipment

ČSN 34 1610 Electrical regulations ČSN. Heavy-current distribution system in industrial workshops

ČSN IEC 60331-11 Tests for electric cables under fire conditions – Circuit integrity– Part 11: Apparatus – Fire alone at a flame temperature of at least 750 degrees °C

ČSN IEC 60331-21 Tests of electric cables under fire conditions - Circuit integrity - Part 21: Procedures and requirements - Cables rated up to and including 0.6/1.0 kV

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ČSN IEC 60331-23 Tests of electrical cables under fire conditions – Circuit integrity – Part 23: Procedures and requirements – Electric data cables

ČSN IEC 60331-25 Tests of electrical cables under fire conditions – Circuit integrity – Part 25: Procedures and requirements – Optical fibre cables

ČSN EN 60332-1-1 Tests of electrical cables under fire conditions – Part 1-1: Test for vertical flame propagations for a single insulated wire or cable – Test equipment

ČSN EN 60332-1-2 Tests of electrical cables under fire conditions – Part 1-2: Test for vertical flame propagations for a single insulated wire or cable – Procedure for 1kW pre-mixed flame

ČSN EN 60332-1-3 Tests of electrical cables under fire conditions – Part 1-3: Test for vertical flame propagations for a single insulated wire or cable – Procedure for determination of flaming droplets / particles

ČSN EN 60332-2-1 Tests of electrical cables under fire conditions 2-1: Test to vertical flame propagation for a single small insulated wire or cable – Test equipment

ČSN EN 60332-2-2 Tests of electrical cables under fire conditions – Part 2-2: Test to vertical flame propagation for a single small insulated wire or cable – Procedure for diffusion flame

ČSN ISO 3864-1 Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings

ČSN EN ISO 1461 Hot dip galvanized coatings on fabricated iron and steel articles – Specifications and test methods

ČSN EN IEC 61131-10 Programmable controllers – Part 10: PLC open XML exchange format

ČSN EN 61439-1 Ed. 2 Low-voltage switchgears – Part 1: General rules

ČSN EN 61439-2 Ed. 2 Low-voltage switchgears – Part 2: Power switchgears

ČSN EN ISO 12944-2 Paints and vanishes – Corrosion protection of steel structure by protective paint systems – Part 2: Classification of environment

ČSN 73 6005 Space arrangement of conduit of technical equipment

ČSN 73 6006 Designation of underground cables and pipes by warning foils

ČSN EN 1838 ČSN EN 1838 Light and lighting – Emergency lighting

ČSN EN 61508-1 Ed. 2 Functional safety of safety-related electrical/electronic/programmable electronic systems - Part 1: General requirements

ČSN EN 61511-1 Ed. 2 Safety instrumentation systems for the industrial process sector - Part 1: Structure, definition, system, hardware requirements and application programming

ČSN 33 1500 Electro-technical rules. Inspection and testing of electrical installations

ČSN 33 3022-1 Short-circuit currents in three-phase AC systems – Part 1: Factors for the calculation of short-circuit currents according to IEC 60909-0

ČSN 33 3015 Electro-technical rules. Substations and electrical equipment. Dimensioning principles according to electromagnetic and thermal effects of short-circuit currents

ČSN 33 3051 Protection equipment of electric machines and distribution switch gear

ČSN 38 1120 Self-consumption of thermal power plants and heating plants

ČSN EN 61000-3-2 ed. 4 Electromagnetic compatibility (EMC)- Part 3-2: Limits – Limits for harmonic current emissions (equipment phase input current ≤ 16 A)

ČSN EN 55011 ed. 4 Industrial, scientific and medical equipment - Characteristics of high frequency interference - Limits and measurement methods

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ČSN EN 61000-4-2 Ed. 2 Electromagnetic compatibility (EMC)- Part 4-2: Testing and measurement techniques – Electrostatic discharge – Immunity test

ČSN EN 61000-4-3 Ed.3 Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques – Radiated radio-frequency electromagnetic field – Immunity test

ČSN EN 61000-4-4 Ed.3 Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques – Fast electrical transients / groups of impulses – Immunity test

ČSN EN 61000-4-5 Ed.3 Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques – Current surge – Immunity test

ČSN EN 61000-4-6 Ed.4 Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances induced by radio-frequency fields

ČSN EN 61000-4-8 Ed.2 Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques – Power frequency magnetic field – Immunity test

ČSN EN 61000-4-9 Ed.2 Electromagnetic compatibility (EMC) - Part 4-9: Testing and measurement techniques – Impulses of magnetic field – Immunity test

ČSN EN 61000-4-11 Ed.2 Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations – Immunity test

ČSN EN 61000-4-12 Ed.3 Electromagnetic compatibility (EMC) - Part 4-12: Testing and measurement techniques – Damped sine wave – Immunity test

ČSN 34 2710 Fire detection and fire alarm systems – Guidelines for planning, design, installation, commissioning, checks, use and maintenance

ČSN 73 0875 Fire Protection of buildings– Setting the conditions for the design of electrical fire alarm systems in the framework of the fire safety solution

ČSN EN 54-3 Ed. 2 Fire detection and fire alarm systems - Part 3: Fire alarm devices – Sirens and other sound devices

ČSN EN 54-30 Fire detection and fire alarm systems - Part 30: Multi-sensor fire detectors - Point detectors using a combination of carbon monoxide sensors and temperature sensors

ČSN EN 54-31+A1 Fire detection and fire alarm systems - Part 31: Multi-sensor fire detectors - Point detectors using a combination of smoke sensors, carbon monoxide sensors and optionally temperature sensors

ČSN EN 54-4 Fire detection and fire alarm systems - Part 4: Power supply

ČSN EN 54-7 Fire detection and fire alarm systems - Part 7: Smoke detectors – Point smoke detectors that operate using scattered light, transmitted light or ionization

ČSN EN 54-1 Fire detection and fire alarm systems – Part 1: Introduction

ČSN EN 54-10 Fire detection and fire alarm systems – Part 10: Flame detectors – Point smoke detector

ČSN EN 54-11 Fire detection and fire alarm systems - Part 11: Manual call points

ČSN EN 54-12 ed. 2 Fire detection and fire alarm systems -Part 12: Smoke detectors - Linear detectors using an optical beam

ČSN EN 54-13+A1 Fire detection and fire alarm systems – Part 13: Compatibility and connectability assessment of system components

ČSN EN 54-17 Fire detection and fire alarm systems - Part 17: Short-circuit isolators

ČSN EN 54-18 Fire detection and fire alarm systems - Part 18: Input /output devices

ČSN EN 54-2 Fire detection and fire alarm systems - Part 2: Control and indicating equipment

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ČSN EN 54-20 Fire detection and fire alarm systems - Part 20: Aspirating smoke detectors

ČSN EN 54-21 Fire detection and fire alarm systems Part 21: Alarm transmission and fault warning routing equipment

ČSN EN 54-22+A1 Fire detection and fire alarm systems - Part 22: Resettable line-type heat detectors

ČSN EN 54-26 Fire detection and fire alarm systems - Part 26: Carbon monoxide detectors – Point detectors

ČSN EN 54-27 Fire detection and fire alarm systems - Part 27: Duct smoke detectors

ČSN EN 54-28 Fire detection and fire alarm systems - Part 28: Non-resettable line-type heat detectors

ČSN EN 54-29 Fire detection and fire alarm systems – Part 29: Multi-sensor fire detectors – Point detectors using a combination of smoke and heat sensors

ČSN 33 4010 Electric-engineering rules. Communication line and equipment protection against atmospheric overvoltage and overcurrent

ČSN EN 50173-1 ed. 3 Information technology – Generic cabling systems - Part 1: General requirements

ČSN EN 50173-2 Information technology - Generic cabling systems - Part 2: Office premises

ČSN EN 50173-3 Information technology - Generic cabling systems - Part 3: Industrial premises

ČSN EN 50173-4 Information technology - Generic cabling systems - Part 4: Homes

ČSN EN 50173-5 Information technology - Generic cabling systems - Part 5: Data centres

ČSN EN 50173-6 Information technology - Generic cabling systems - Part 6: Distributed building services

ČSN EN 50174-1 ed. 2 Information technology - Generic cabling systems - Part 1: Specification and quality assurance

ČSN EN 50174-2 ed. 2 Information technology - Generic cabling systems - Part 2: Installation planning and practices inside building

ČSN EN 50174-3 ed. 2 Information technology - Generic cabling systems - Part 3: Installation planning and practices outside building

ČSN EN 50130-4 ed. 2 Alarm systems - Part 4: Electromagnetic compatibility – Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV systems, access control and social alarm systems

ČSN EN 50130-5 ed. 2 Alarm systems - Part 5: Environmental test methods

ČSN EN 50131-8 Alarm systems – Intrusion and hold-up alarm systems - Part 8: Security fog devices/systems

ČSN EN 50131-1 ed. 2 Alarm systems - Intrusion and hold-up alarm systems - Part 8: Security fog devices

ČSN EN 50131-10 Alarm systems – Intrusion and hold-up systems - Part 10: Application specific requirements for Supervised Premises Transceiver (SPT)

ČSN EN 50131-2-2 ed.2 Alarm systems – Intrusion and hold-up systems - Part 2-2: Intrusion detectors – Passive infrared detectors

ČSN EN 50131-2-3 Alarm systems - Intrusion and hold-up systems - Part 2-3: Requirements for microwave detectors

ČSN EN 50131-2-4 Alarm systems - Intrusion and hold-up systems - Part 2-4: Requirements for passive infrared and microwave detectors

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ČSN EN 50131-2-6 Alarm systems - Intrusion and hold-up systems - Part 2-6: Lock state contacts (magnetic)

ČSN EN 50131-2-7-1 Alarm systems - Intrusion and hold-up systems - Part 2-7-1: Intrusion detectors – Glass break detectors (acoustic)

ČSN EN 50131-2-7-2 Alarm systems - Intrusion and hold-up systems - Part 2-7-2: Intrusion detectors – Glass break detectors (passive)

ČSN EN 50131-2-7-3 Alarm systems - Intrusion and hold-up systems - Part 2-7-3: Intrusion detectors – Glass break detectors (active)

ČSN EN 50131-3 Alarm systems - Intrusion and hold-up systems - Part 3: Control and indicating equipment

ČSN EN 50131-4 Alarm systems - Intrusion and hold-up systems - Part 4: Warning devices

ČSN EN 50131-5-3 ed.2 Alarm systems - Intrusion and hold-up systems - Part 5-3: Requirements for interconnections equipment using radio frequency techniques

ČSN CLC/TS 50131-11 Alarm systems - Intrusion and hold-up systems -Part 11: Emergency device

ČSN CLC/TS 50131-2-10 Alarm systems - Intrusion and hold-up systems - Part 2-10: Intrusion Detectors – Lock state contacts (magnetic)

ČSN CLC/TS 50131-5-4 Alarm systems - Intrusion and hold-up systems - Part 5-4: System compatibility testing for I&HAS equipment located in supervised premises

ČSN CLC/TS 50131-9 Alarm systems - Intrusion and hold-up systems – Part 9: Alarm verification – Methods and principles

ČSN CLC/TS 50136-4 Alarm systems - Intrusion and hold-up systems - Part 4: Annunciation equipment used in alarm receiving centres

ČSN EN 50136-1 Alarm systems - Intrusion and hold-up systems – Part 1: General requirements for alarm transmission systems

ČSN EN 50136-2 Alarm systems - Intrusion and hold-up systems - Part 2: Application specific requirements for Supervised Premises Transceiver (SPT)

ČSN EN 50136-3 Alarm systems - Intrusion and hold-up systems – Part 3: Requirements for Receiving Centre Transceiver (RCT)

ČSN 33 2130 ed. 3 Low-voltage electrical installations – Internal electric distribution lines

ČSN EN 298 Automatic burner control systems for burners and appliances burning gaseous or liquid fuels

3.4 Fire Protection

ČSN 73 0804 Fire protection of buildings – Industrial buildings

ČSN 73 0802 Fire protection of buildings – Non-industrial buildings

ČSN 73 0810 Fire protection of buildings - General requirements

ČSN 73 0834 Fire protection of buildings – Changes of buildings

ČSN 73 0872 Fire protection of buildings. – Protection of buildings to extension of fire by air-distributing equipment

ČSN 73 0873 Fire protection of buildings – Equipment for fire-water supply

ČSN 73 0821 ed. 2 Fire protection of buildings – Fire resistance of engineering structures

ČSN 73 0818 Fire protection of buildings – Person / surface rate in buildings

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ČSN 73 0875 Fire protection of buildings – Setting specification for design of fire detection and fire alarm systems in terms of fire safety solution

ČSN EN 60079-10-1 ed. 2 Explosive atmospheres - Part 10-1: Classification of dangerous areas – Explosion gas atmospheres

ČSN EN 60079-10-2 ed. 2 Explosive atmospheres - Part 10-2: Classification of dangerous areas – Combustible dust atmospheres

ČSN 01 3495 Building drawings – Fire protection drawings

VdS CEA 4001 Guidelines for sprinkler systems – planning and installation

3.5 Internal Technical Standards (ITS)

The separate Annex to this Document A13 contains the ŠKODA AUTO Internal Technical Standards (ITS) which are also binding for the CONTRACTOR.