



Maintenance Work Cards (English Translation)

Work Card for KG 435 Refrigeration Systems (in AHU)

Performance code – Inspection and maintenance tasks

Intervals: monthly | 12-monthly | 24-monthly | as needed

1.0.0.0 Compressor

1.1.0.0 Reciprocating, screw, and turbo compressors

- 1.1.0.1 Check externally for dirt, damage, and corrosion (monthly)
- 1.1.0.2 Check mounting and running noises (monthly)
- 1.1.0.3 Measure suction pressure (monthly)
- 1.1.0.4 Measure suction gas temperature before compression (monthly)
- 1.1.0.5 Measure discharge (final) pressure (monthly)
- 1.1.0.6 Measure discharge-end temperature at the discharge connection (monthly)
- 1.1.0.7 Check oil level at the sight glass (monthly)
- 1.1.0.8 Check oil for acid content (acid test) (monthly)
- 1.1.0.9 Change oil (as required)
- 1.1.0.10 Measure oil pressure (monthly)
- 1.1.0.11 Adjust oil pressure (12-monthly)
- 1.1.0.12 Measure oil temperature before and after the oil cooler (monthly)
- 1.1.0.13 Measure water temperature before and after the oil cooler (monthly)
- 1.1.0.14 Check oil separator function (monthly)
- 1.1.0.15 Measure current draw (monthly)

- 1.1.0.16 Drive elements: see item 6000
- 1.1.0.17 Check crankcase heater function (monthly)
- 1.1.0.18 Check starting unload function (monthly)
- 1.1.0.19 Check capacity control function (monthly)
- 1.1.0.20 Check shaft seal for leaks (monthly)
- 1.1.0.21 Check service valves (monthly)
- 1.1.0.22 Check bearing temperature of turbo compressor (monthly)
- 1.1.0.23 Clean externally (12-monthly)
- 1.1.0.24 Check for tightness/leaks (12-monthly)
- 1.1.0.25 Check refrigerant-carrying system components for leaks (monthly)
 - See also item 8000

2.0.0.0 Heat exchangers

2.2.0.0 Air-cooled condenser

- 2.2.0.1 Check externally for dirt, damage, and corrosion (monthly)
- 2.2.0.2 Fan: see item 5100
- 2.2.0.3 Check damper control function (monthly)
- 2.2.0.4 Measure condensing temperature (monthly)
- 2.2.0.5 Measure air inlet temperature (monthly)
- 2.2.0.6 Clean fins on air side (12-monthly)
- 2.2.0.7 Check refrigerant-carrying system components for leaks (monthly)
 - See also item 8000

2.4.0.0 Evaporator (air/refrigerant)

- 2.4.0.1 Check externally for dirt, damage, and corrosion (monthly)
- 2.4.0.2 Fan: see item 5100
- 2.4.0.3 Check damper control function (monthly)
- 2.4.0.4 Measure evaporation temperature at cooling outlet (monthly)
- 2.4.0.5 Measure air inlet and outlet temperature (monthly)

- 2.4.0.6 Check condensate drain function (monthly)
- 2.4.0.7 Check defrost and condensate drain heater function (monthly)
- 2.4.0.8 Clean condensate drain (12-monthly)
- 2.4.0.9 Clean fins on air side (12-monthly)
- 2.4.0.10 Check refrigerant-carrying system components for leaks (monthly)
 - See also item 8000

3.0.0.0 Plant components

3.1.0.0 Piping

- 3.1.0.1 Check externally for dirt, damage, and corrosion (monthly)
- 3.1.0.2 Check insulation externally for damage (monthly)
- 3.1.0.3 Check mounting (monthly)
- 3.1.0.4 Check expansion joints externally for damage (monthly)
- 3.1.0.5 Check refrigerant-carrying system components for leaks (monthly)
 - See also item 8000
- 3.1.0.6 Check filter drier for blockage (monthly)
- 3.1.0.7 Replace filter drier (12-monthly)
- 3.1.0.8 Check liquid condition in sight glass in liquid line (monthly)
- 3.1.0.9 Check moisture indicator for discoloration (monthly)
- 3.1.0.10 Check liquid level in receiver (monthly)

3.2.0.0 Valves and fittings

- 3.2.0.1 Check externally for dirt, damage, and corrosion (monthly)
- 3.2.0.2 Check solenoid valve function (monthly)
- 3.2.0.3 Check injection devices function (monthly)
- 3.2.0.4 Adjust injection devices (12-monthly)
- 3.2.0.5 Check shut-off valves function (monthly)
- 3.2.0.6 Check refrigerant-carrying system components for leaks (monthly)
 - See also item 8000

3.3.0.0 I&C and safety devices

- 3.3.0.1 Check externally for dirt, damage, and corrosion (monthly)
- 3.3.0.2 Check function (monthly)
- 3.3.0.3 Set to design data; document setpoints (12-monthly)
- 3.3.0.4 Check refrigerant-carrying system components for leaks (monthly)
 - See also item 8000

3.4.0.0 Measuring and indicating instruments

- 3.4.0.1 Check externally for dirt, damage, and corrosion (monthly)
- 3.4.0.6 Check refrigerant-carrying system components for leaks (monthly)
 - See also item 8000

4.1.2.0 Functional measures

- 4.1.2.9 Set blowdown quantity according to design data (12-monthly)
- 4.1.2.10 Check drain and overflow function (monthly)
- 4.1.2.11 Check dirt trap/strainer for contamination (monthly)
- 4.1.2.12 Clean dirt trap/strainer (12-monthly)
- 4.1.2.13 Check sump heater function (monthly)
- 4.1.2.14 Circulation pump: see item 7100
- 4.1.2.15 Check heat tracing function (monthly)
- 4.1.2.16 Check silencer function (monthly)
- 4.1.2.17 Clean (12-monthly)

5.0.0.0 Air conveying equipment

5.1.0.0 Fan

- 5.1.0.1 Check for dirt, damage, corrosion, and mounting (monthly)
- 5.1.0.2 Check impeller for imbalance (monthly)
- 5.1.0.3 Check airflow control device (blade pitch control) function (monthly)
- 5.1.0.4 Check bearings for noise (monthly)

- 5.1.0.5 Lubricate bearings (12-monthly)
- 5.1.0.6 Check flexible connection for tightness/leaks (monthly)
- 5.1.0.7 Check vibration dampers function (monthly)
- 5.1.0.8 Check protective devices function (monthly)
- 5.1.0.9 Check drainage function (monthly)
- 5.1.0.10 Drive elements: see item 6000
- 5.1.0.11 Clean (12-monthly)

6.0.0.0 Drive elements

6.1.0.0 Electric motors

- 6.1.0.1 Check for dirt, damage, corrosion, and mounting (monthly)
- 6.1.0.2 Check direction of rotation (monthly)
- 6.1.0.3 Check bearings for noise (monthly)
- 6.1.0.4 Lubricate bearings (12-monthly)
- 6.1.0.5 Check protective devices function (monthly)
- 6.1.0.6 Clean (12-monthly)

8.0.0.0 Leak checks for systems with fluorinated greenhouse gases

Reference: Regulation (EU) No. 517/2014

Transition period:

- Equipment containing less than 3 kg of fluorinated greenhouse gases, or hermetically sealed equipment that is appropriately labelled and contains less than 6 kg of fluorinated greenhouse gases, is not subject to leak checks until 31 Dec 2106.

8.2.0.0 Systems with leak detection system

- 8.2.0.1 Leak check (refrigerant) for charge 5 t to < 50 t CO₂-equivalent (12-monthly)
 - Exception: hermetically sealed systems with charge < 10 t CO₂-equivalent

- 8.2.0.2 Leak check (refrigerant) for charge 50 t to < 500 t CO₂-equivalent (12-monthly)
 - 8.2.0.3 Leak check (refrigerant) for charge ≥ 500 t CO₂-equivalent (12-monthly)
 - 8.2.0.4 Check leak detection system function (monthly)
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Work Card for KG 480 Building Automation / I&C Systems

Intervals: yearly | every 2 years | as needed

1.0.0.0 Supply systems

- See work card KG 430, 473

2.0.0.0 Control cabinets, operator panels, controllers

2.1.0.0 Control cabinets / operator panels

- 2.1.0.1 Check correct installation and ambient conditions (yearly)
- 2.1.0.2 Check for dirt, damage, corrosion (yearly)
- 2.1.0.3 Check protective covers for completeness and secure fit (yearly)
- 2.1.0.4 Clean (as needed)
- 2.1.0.5 Check electrical/mechanical connections; tighten if necessary (yearly and every 2 years)
- 2.1.0.6 Check functional elements (e.g., operator and display devices) (yearly)
- 2.1.0.7 Set/adjust/tighten functional elements (yearly)
 - Not applicable for encapsulated components
- 2.1.0.8 Check visual and audible alarm devices (yearly)
- 2.1.0.9 Check fuses for secure seating (yearly)
 - See also item 3200
- 2.1.1.0 Check circuit breakers, contactors, relays for wear/damage (e.g., contact burn) (yearly)
 - Not applicable for encapsulated components

- 2.1.1.1 Check switching/control operations (e.g., frost protection function) (yearly)
- 2.1.1.2 Check safety devices (e.g., thermal trips); adjust and record if necessary (yearly and every 2 years)
 - See also item 3200
- 2.1.1.3 Check settings of cabinet components (e.g., time relays) (yearly)
- 2.1.1.4 Check manual/automatic/remote operation (yearly)
- 2.1.1.5 Adjust manual/automatic/remote operation (as needed)

2.2.0.0 Controllers

- 2.2.0.1 Check correct installation and ambient conditions (yearly)
- 2.2.0.2 Check for dirt, damage, corrosion (yearly)
- 2.2.0.3 Clean (as needed)
- 2.2.0.4 Check electrical/mechanical connections; tighten if necessary (yearly and every 2 years)
- 2.2.0.5 Check functional elements (e.g., operator/display devices) (yearly)
- 2.2.0.6 Set/adjust/tighten functional elements (yearly)
- 2.2.0.7 Check input signals (e.g., sensors, remote setpoints, reference variables) against setpoints (yearly)
- 2.2.0.8 Calibrate signals (yearly)
- 2.2.0.9 Check control function, control signal, and safety interlocks (yearly)
- 2.2.1.0 Adjust control function and control signals (as needed)

3.0.0.0 Sensors, safety and vessel monitoring devices

3.1.0.0 Electrical/electronic/pneumatic transmitters (e.g., temperature, pressure, humidity)

- 3.1.0.1 Check correct installation and ambient conditions (yearly)
- 3.1.0.2 Check for dirt, damage, corrosion (yearly)
- 3.1.0.3 Clean (as needed)
- 3.1.0.4 Check electrical/mechanical connections (yearly)

- 3.1.0.5 Measure physical variables at the measuring point and record (yearly)
- 3.1.0.6 Check electrical/electronic/pneumatic signals (yearly)
- 3.1.0.7 Readjust / regenerate (as needed)
- 3.1.0.8 Check recording instruments function (yearly)

4.0.0.0 Controllers, add-on modules, optimizers

4.1.0.0 Analog/digital, electrical/electronic, pneumatic controllers, modules, optimizers

- 4.1.0.1 Check correct installation and ambient conditions (yearly)
- 4.1.0.2 Check for dirt, damage, corrosion (yearly)
- 4.1.0.3 Check self-power supply (buffer battery, etc.) (yearly)
- 4.1.0.4 Clean (as needed)
- 4.1.0.5 Check electrical/mechanical connections; tighten/adjust if required (yearly and every 2 years)
- 4.1.0.6 Check functional elements (e.g., operating elements, clocks, displays) (yearly)
- 4.1.0.7 Set/adjust/tighten functional elements (yearly)
- 4.1.0.8 Check input signals (e.g., sensors, remote setpoints, reference variables) (yearly)
- 4.1.0.9 Calibrate signals (yearly)
- 4.1.1.0 Check controller/module/optimizer functions and control output signal (yearly)
- 4.1.1.1 Adjust controller/module/optimizer functions and output signal (as needed)
- 4.1.1.2 Check control loop/module/optimization function according to parameters, considering all auxiliary functions (yearly)
- 4.1.1.3 Correct/readjust control loop/module/optimization function according to parameters (as needed)
 - Adjust optimization functions to changed parameters if required

5.0.0.0 Actuators

5.1.0.0 Actuators (drives)

- 5.1.0.1 Check correct installation and ambient conditions (yearly)
- 5.1.0.2 Check for dirt, damage, corrosion (yearly)
- 5.1.0.3 Check external tightness/leaks (yearly)
- 5.1.0.4 Clean (as needed)
- 5.1.0.5 Check electrical/mechanical connections; tighten if necessary (yearly)
- 5.1.0.6 Check input signals and operating/control range (yearly)
- 5.1.0.7 Check safety position (yearly)
- 5.1.0.8 Check position/limit switches and end switches (yearly)
- 5.1.0.9 Readjust (as needed)

5.2.0.0 Final control elements (e.g., valves, cocks, dampers)

- 5.2.0.1 Check correct installation and ambient conditions (yearly)
- 5.2.0.2 Check for dirt, damage, corrosion (yearly)
- 5.2.0.3 Clean (as needed)
- 5.2.0.4 Check mechanical connections (yearly)
- 5.2.0.5 Check for leaks (yearly)
- 5.2.0.6 Check stuffing box (yearly)
- 5.2.0.7 Lubricate spindle (yearly)
- 5.2.0.8 Check function (yearly)
- 5.2.0.9 Adjust (as needed)
- 5.3.0.0 Final control elements (e.g., louvre dampers, medium air): see work card KG 430

6.0.0.0 Data transmission / I/O devices

6.1.0.0 Data transmission devices (e.g., modem, multiplexer, bus systems, etc.)

- 6.1.0.1 Clean (housing) (as needed)
- 6.1.0.2 Check ventilation (yearly)
- 6.1.0.3 Clean ventilation, clean/replace air filter (as needed)
- 6.1.0.4 Check functional elements (e.g., operator and display devices) (yearly)
- 6.1.0.5 Perform random online test (yearly)

7.1.5.0 Central units / sub-central units (additional)

- 7.1.5.1 Perform system check with restart (yearly)
- 7.1.5.2 Check program storage (yearly)
- 7.1.5.3 Check automatic time synchronization (if installed) (yearly)
- 7.1.5.4 Check automatic initialization after power return (yearly)
- 7.1.5.5 Check interfaces to peripheral devices (yearly)
- 7.1.5.6 Check dual or multi-computer operation (yearly)

7.1.7.0 Substations (additional)

- 7.1.7.1 Perform substation system check (yearly)
- 7.1.7.2 Check substation program storage (yearly)
- 7.1.7.3 Perform reset and boot process (yearly)
- 7.1.7.4 Check input signals (e.g., sensors, remote setpoints, reference variables) (yearly)
- 7.1.7.5 Calibrate signals (yearly)
- 7.1.7.6 Check controller/module/optimizer functions and control signals (yearly)
- 7.1.7.7 Adjust controller/module/optimizer functions and output signals (as needed)

8.0.0.0 Software

8.1.0.0 Software for central/sub-central/substation units (see items 2209, 4112, 6110, 7113)

- 8.1.0.1 Perform data backup (yearly)
 - 8.1.0.2 Store the most recently created program and data copies (yearly)
 - 8.1.0.3 Perform random online test (yearly) (see item 7114)
 - 8.1.0.4 Update and maintain system software (yearly) (see item 7156)
 - 8.1.0.5 Test application programs (yearly)
 - 8.1.0.6 Check remote data transmission (yearly)
 - 8.1.0.7 Check dual or multi-computer operation (yearly)
 - 8.1.0.8 Load the latest (current) program and data copies (as needed)
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Work Card for KG 410 Wastewater, Water, Gas Systems

Intervals: monthly | 6-monthly | 12-monthly | 24-monthly | as needed

1.0.0 Drainage

1.1.0 Pipes and accessories (EN 12056, DIN 1986 Part 100)

- 1.1.1 Check for damage, external corrosion, and mounting (monthly)
- 1.1.2 Check for encrustation (at free outlet; visual inspection) (monthly)
- 1.1.3 Check for leaks (visual inspection) (monthly)
- 1.1.4 Check insulation for damage (monthly)

1.2.0 Drains (EN 1253)

- 1.2.1 Check for damage and external corrosion (monthly)
- 1.2.2 Check for contamination (monthly)
- 1.2.3 Clean to maintain function (monthly)
- 1.2.4 Check for leaks (visual inspection) (monthly)
- 1.2.5 Check water level (trap seal) (monthly)

1.3.0 Shut-off devices and backflow preventers (EN 12056, DIN 1986 Part 100, EN 13654)

- 1.3.1 Check for damage and external corrosion (monthly)
- 1.3.2 Clean backflow preventers to maintain function (monthly)
- 1.3.3 Check function (monthly)

- 1.3.4 Check for leaks (visual inspection) (monthly)
- 1.3.5 Drive elements and I&C technology: see item 800

1.4.0 Drainage pump

- See item 150

1.5.0 Lifting station and drainage pump

- 1.5.1 Check for contamination, damage, external corrosion (monthly)
- 1.5.2 Clean to maintain function (monthly)
- 1.5.3 Clean tank inside and check for corrosion (yearly)
- 1.5.4 Check function (yearly)
- 1.5.5 Check for leaks (yearly)
- 1.5.6 Drive elements and I&C technology: see item 800

1.8.0 Inspection/cleaning/collection manholes (EN 12056, DIN 1986 Part 100)

- 1.8.1 Check for damage and external corrosion (monthly)
- 1.8.2 Check for contamination (monthly)
- 1.8.3 Clean to maintain function, including disposal (monthly)
- 1.8.4 Check function (monthly)
- 1.8.5 Check for leaks (visual inspection) (monthly)

2.0.0 Drinking water supply (DIN 1988 Part 8)

2.1.0 Pipes and accessories

- 2.1.1 Check for damage, external corrosion, and mounting (monthly)
- 2.1.2 Check insulation for damage and completeness (monthly)
- 2.1.3 Check for leaks (visual inspection) (monthly)
- 2.1.4 Check pipe inspection sections for encrustation (monthly)
 - 1 year after commissioning, then upon changes in water quality
- 2.1.5 Check expansion joints for damage and mounting (monthly)

2.2.0 Shut-off, wall-mounted, and drain valves (DIN 1988 Part 8)

- 2.2.1 Check for damage and external corrosion (monthly)

- 2.2.2 Check function (monthly)
- 2.2.3 Check for leaks (visual inspection) (monthly)

2.3.0 Safety valves/fittings (DIN 1988 Part 8 Annex B)

- 2.3.1 Check for damage and external corrosion (monthly)
- 2.3.2 Check function (monthly)
- 2.3.3 Check for leaks (visual inspection) (monthly)
- 2.3.4 Check vacuum breakers, pipe separators, and pipe aerators for encrustation (monthly)

2.5.0 Pressure boosting, pressure reduction, pressure vessels (DIN 1988 Part 8)

- 2.5.1 Check for damage, external corrosion, and mounting (monthly)
- 2.5.2 Check pressure vessel for leaks (monthly)
- 2.5.3 Check shut-off devices and safety equipment function (24-monthly)
- 2.5.4 Check pressure maintenance and shut-off valve in expansion line (open position, securing) (monthly)
- 2.5.5 Check air cushion (monthly)
- 2.5.6 Build up air cushion (as needed)
- 2.5.7 Compressors: see VDMA 24186 Part 6 No. 6
- 2.5.8 Check pressure gauge for damage, indication, and function (monthly)
- 2.5.9 Check safety valve function (monthly)
- 2.5.10 Check delivery pump for damage, corrosion, mounting, noise, and leaks (monthly)
- 2.5.11 Check delivery pump function (monthly)
- 2.5.12 Check pressure controller function (monthly)
- 2.5.13 Check pressure regulating valve (bypass valve, pressure reducer) function (monthly)
- 2.5.14 Adjust pressure regulating valve (24-monthly)
- 2.5.15 Check backflow preventer function (monthly)

- 2.5.16 Check expansion vessel and connections for damage, corrosion, mounting, and leaks (monthly)
- 2.5.17 Drive elements and I&C technology: see item 800
- 2.5.18 External cleaning (12-monthly)

2.6.0 Measuring and metering devices

- 2.6.1 Check for damage, external corrosion, and indication (monthly)
- 2.6.2 Check function (monthly)
- 2.6.3 Check for leaks (monthly)

2.7.0 Filters

- 2.7.1 Check for damage and external corrosion (monthly)
- 2.7.2 Check for contamination (monthly)
- 2.7.3 Check function (monthly)
- 2.7.4 Replace filter insert (12-monthly and 24-monthly)
- 2.7.5 Backflush filter (6-monthly)
- 2.7.6 Check for leaks (monthly)

3.0.0 Fixtures

3.1.0 Wash basins, showers, baths, bidets

- 3.1.1 Check for contamination and damage (monthly)
- 3.1.2 Check mounting and leaks (monthly)
- 3.1.3 Check drain and overflow for external corrosion and function (monthly)
- 3.1.4 Clean drain and overflow to maintain function (12-monthly)

3.2.0 Fittings

- 3.2.1 Check for contamination, damage, and external corrosion (monthly)
- 3.2.2 Check mounting (monthly)
- 3.2.3 Check function (monthly)
- 3.2.4 Check for leaks (monthly)

- 3.2.5 Check thermostat function (monthly)
- 3.2.6 Check electronics incl. control valve or electromechanical control device (monthly)
- 3.2.7 Check aerators and shower heads for contamination and damage (12-monthly)
- 3.2.8 Clean to maintain function (12-monthly)

3.3.0 Toilets and urinals

- 3.3.1 Check for contamination and damage (monthly)
- 3.3.2 Check mounting (monthly)
- 3.3.3 Check function (monthly)
- 3.3.4 Check for leaks (monthly)
- 3.3.5 Clean to maintain function (monthly)
- 3.3.6 Check drain and overflow for external corrosion and function (monthly)
- 3.3.7 Check toilet seat for damage and secure fit (monthly)
- 3.3.8 Check hinges for corrosion and function (monthly)

3.4.0 Cisterns (DIN 1988 Part 8)

- 3.4.1 Check for contamination and damage (monthly)
- 3.4.2 Check mounting (monthly)
- 3.4.3 Check for leaks (monthly)
- 3.4.4 Check function (monthly)
- 3.4.5 Clean to maintain function (monthly)
- 3.4.6 Check shut-off valve function and tightness (monthly)

3.5.0 Flush valves (DIN 1988 Part 8)

- 3.5.1 Check for contamination, damage, and external corrosion (monthly)
- 3.5.2 Check mounting (monthly)
- 3.5.3 Check for leaks (monthly)
- 3.5.4 Check function (monthly)

- 3.5.5 Clean to maintain function (monthly)

3.6.0 Domestic hot water heaters (decentralized supply)

- 3.6.1 Check for contamination, damage, and external corrosion (monthly)
- 3.6.2 Check for leaks (monthly)
- 3.6.3 Check mounting (monthly)
- 3.6.4 Check function (monthly)
- 3.6.5 Check for limescale (monthly)
- 3.6.6 Descale (24-monthly)
- 3.6.7 Clean to maintain function (monthly)
- 3.6.8.1 Check electrical connections for damage and secure fit (monthly)
- 3.6.8.2 Check safety devices function (monthly)
- 3.6.8.3 Check switches, thermostats, and indicator lamps function (monthly)

8.0.0 I&C technology and drive elements

- 8.1.0 I&C technology: see work card KG 480
- 8.2.0 Electric motors
 - 8.2.1 Check for contamination, damage, external corrosion (monthly)
 - 8.2.2 Check direction of rotation (monthly)
 - 8.2.3 Check bearings for noise (monthly)
 - 8.2.4 Lubricate bearings (12-monthly and 24-monthly)
 - 8.2.5 Check protective devices function (monthly)
 - 8.2.6 Clean to maintain function (monthly)

9.0.0 Non-potable water system

9.1.0 Pipes and accessories

- 9.1.1 Check for damage, external corrosion, and mounting (monthly)
- 9.1.2 Check insulation for damage and completeness (monthly)

- 9.1.3 Check for leaks (visual inspection) (monthly)
- 9.1.4 Check pipe inspection sections for encrustation (monthly)
- 9.1.5 Check expansion joints for damage and mounting (monthly)

9.2.0 Shut-off devices

- 9.2.1 Check for damage and external corrosion (monthly)
- 9.2.2 Check function (monthly)
- 9.2.3 Check for leaks (visual inspection) (monthly)

9.3.0 Firefighting systems *(intervals must be verified case-by-case based on project-specific requirements such as installation instructions, fire protection design, manufacturer specifications)*

Elevator Maintenance (all three properties)

1. General inspection (monthly)

- Visual inspection: check elevator car, doors, shaft, and machine room for cleanliness, cracks, damage, and wear
- Functional test: verify correct response to all floors and check leveling accuracy

2. Technical inspection (quarterly)

- Mechanical components: check guide rails, ropes, chains, and buffers for wear and damage (January, April, July, October)
- Lubricate moving parts and check smooth movement
- Safety devices: check safety gear, overload protection, and emergency brake systems

3. Electrical inspection (semi-annually)

- Electrical systems: check switching/control equipment for cleanliness, damage, and secure wiring (February, August)
- Backup power: check emergency power supply and emergency lighting (March, September)

4. Repairs (as needed)

- Minor repairs: replace worn/defective parts (lamps, buttons, indicators). Adjust doors and safety edges

- Major repairs: replace suspension and compensating ropes if worn. Repair/replace safety-critical components (brakes, emergency brake system)

5. Safety tests (annually)

- Main inspection by certified experts according to legal requirements and manufacturer specifications
- Document results and carry out any necessary rework

6. Documentation and planning (ongoing)

- Record work performed, materials, and tools. Maintain a maintenance log for each measure
- Establish a maintenance plan with regular inspection and service intervals

Fire Extinguisher Maintenance (all properties)

1. General inspection (monthly)

- Visual inspection: check extinguisher for cleanliness, damage, corrosion, and correct mounting
- Accessibility and signage check
- Pressure check: verify gauge is in the green range

2. Technical inspection (every 2 years)

- Functional check according to manufacturer instructions
- Check condition and fill level of extinguishing agent
- Check valves, hoses, and seals for function and tightness
- Maintenance according to DIN 14406-4

3. Pressure vessel test (every 5 years)

- Pressure vessel safety test carried out by an approved inspection body

4. Repairs (as needed)

- Minor repairs: replace damaged parts
- Major repairs: repair or replace the extinguisher

5. Replacement and service life (long term)

- Replace extinguishers at end of service life (approx. 20 years) or if irreparably damaged

6. Documentation and planning (ongoing)

- Document maintenance work and keep maintenance records
- Create a maintenance plan and define inspection intervals

Quantity of fire extinguishers (to be added):

- 6 kg dry powder extinguishers: 52
 - CO₂ fire extinguishers: 12
 - Foam extinguishers: 2
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Floor Maintenance (all properties)

1. General inspection (semi-annually) (January, July)

- Check floors for cracks, scratches, stains, and damage
- Check joints and transitions for tightness and wear
- Check levelness of natural stone surfaces and joints

2. Natural stone floor care (semi-annually)

- Impregnation (April, October): apply suitable impregnating agent according to manufacturer instructions
- Polishing (May, November): polish using appropriate machine and pads. Use stone care product if needed

3. Repairs (as needed)

- Minor repairs: fill cracks and small damage. Repair joints
- Major repairs: replace severely damaged stone slabs/tiles. Restore levelness and stability

4. Protection measures (annually)

- Weather protection (spring): treat outdoor natural stone floors for weather resistance (moisture and UV). Renew protection layer as needed

5. Inspection and assessment (annually)

- Main inspection (summer): professional inspection and documentation. Create maintenance/renovation plan and repair catalog

6. Documentation and planning (ongoing)

- Document maintenance activities and keep protocols
 - Establish regular intervals
-

Woodwork Maintenance (all three properties)

1. General inspection (quarterly) (January, April, July, October)

- Check wood surfaces for cracks, discoloration, and damage
- Check door and window frames, stairs, handrails, railings, and other wood structures
- Check connections and fasteners (screws, nails, anchors) for strength and stability
- Check moisture content and signs of moisture, mold, or rot

2. Exterior and interior wood surfaces care (semi-annually)

- Care (June, December): oil, wax, or repaint as needed. Refresh painted surfaces. Sand and repaint if needed

3. Repairs (as needed)

- Minor repairs: fix scratches and small cracks using wood filler or wax sticks
- Tighten loose connections, replace fasteners if needed
- Repair/adjust doors and handrails if needed
- Major repairs: replace damaged wood parts. Reinforce load-bearing structures if required

4. Protection measures (annually)

- Weather protection (spring): apply wood protection against moisture, UV, and pests. Renew as needed
- Check and renew seals: window and door seals for tightness and damage

5. Documentation and planning (ongoing)

- Document work performed, scope, and materials
 - Establish regular intervals
-

Interior and Exterior Façade Maintenance (all properties)

1. General inspection (quarterly) (January, April, July, October)

- Check façades for cracks, discoloration, damage, and wear
- Check joints, connections, and transitions for tightness
- Check anchors and fasteners of façade elements
- Check condition of window/door frames and seals

2. Façade cleaning (semi-annually)

- Exterior façade cleaning (May, November): use suitable cleaning agent based on material compatibility. Use pressure washer only if appropriate
- Remove algae, moss, and other organic deposits

3. Repairs (as needed)

- Minor repairs: fill cracks and small damage. Repair mortar and joints. Tighten/replace loose fasteners
- Major repairs: replace damaged façade elements/panels. Renew/repair supporting structures and anchors. Renovate larger façade areas if required

4. Protection measures (annually)

- Weather protection (spring): treat façades with suitable protective agents. Renew coatings/paint as required
- Seal check and renewal (autumn): check window and door seals for tightness and damage. Replace if needed

5. Façade inspection (annually)

- Main inspection (summer): thorough inspection and documentation. Create maintenance/renovation plan and repair catalog

6. Documentation and planning (ongoing)

- Document work performed, materials, and tools. Maintain protocols

- Establish regular intervals