Minimum Safety Standards and Life Saving Rules

Valmet has Minimum Safety Standards for high-risk activities to ensure we have critical controls in place everywhere we work.

All Valmet operations are responsible for implementing legal and customer requirements, as well as Valmet's minimum safety standards in local procedures.

The strictest standard always applies.

We have Minimum Safety Standards for:

- General requirements
- Driving and operating vehicles or mobile equipment
- Electrical safety
- Entering or working in confined spaces
- Exposure to hazardous substances
- Hot work
- Lock out / tag out
- Maintaining good order
- Manual handling
- Mechanical lifting
- Personal Protective Equipment (PPE)
- Safeguarding of machines
- Using work equipment
- Working at heights
- Working around radiation

General requirements

Valmet Minimum Safety Standard

- Everyone working for Valmet has the right to refuse to do unsafe work and to stop others from doing so.
- All work activities must be risk assessed and safe work methods then defined and implemented.
- All work equipment must be suitable for the task and properly inspected and maintained.
- Everyone shall be fit to work and given information, training, instruction and supervision for the tasks they perform.
- All needed safe work instructions shall be available in a local language the personnel understand.
- Everyone shall work with a valid permit when required and possess required qualifications.
- HSE events shall be reported immediately to authorities as required and according to internal reporting routines.
- In common workplaces, Valmet shall consult, co-operate and co-ordinate with the other companies operating there.
- Local regulations and customer requirements shall be followed in addition to the Valmet minimum safety standards. The strictest standard always applies.
- Valmet sub-contractors are required to implement and follow these standards.

Driving and operating vehicles and mobile equipment

Valmet Minimum Safety Standard

- This standard applies to all vehicles and mobile equipment (such as cars, forklift trucks, scissor lifts, and boomlifts) used in the conduct of Valmet business.
- Only trained and authorized personnel are permitted to operate vehicles and mobile equipment.
- Vehicles and mobile equipment shall be fitted with seatbelts whenever possible. Sit-down forklift must be equipped with a seat belt.
- When a seatbelt is not available another system to secure safety must be in place.
- Drivers, operators and their passengers shall wear available seat belts or other required safety equipment at all times.
- Drivers shall not use any hand-held communication devices. If allowed by local legislation, drivers may only operate devices in a “hands-free” manner.
- It is prohibited to drive or operate mobile equipment under the influence of alcohol, narcotics or any medications that affect ability to operate.
- Drivers must be rested, alert and fit to drive before operating vehicles. Regular breaks shall be taken during the journey.
- Respect speed limits and adjust speed to prevailing conditions.
- Drivers and operators shall be aware of pedestrians and give way in intersections and pedestrian zones.
- Drivers and operators shall ensure that vehicles and mobile equipment shall be in good condition and periodically inspected, maintained and checked before each use.

Electrical safety

Valmet Minimum Safety Standard

- Electrical work shall only be performed by qualified, competent and authorized personnel.
- Electrical work shall be risk assessed, planned and task specific requirements, such as lock-out tag-out procedures, followed.
- High voltage work and work on electrical power systems shall be done by at least two personnel who always have a written work plan and a permit-to-work.
- Grounding is mandatory for all machinery and flammables storage cabinets.
- A Ground Fault Circuit Interruptor (GFCI, also called a Residual Current Device, RCD) must be used for outdoor and wet conditions, as well as for temporary electrical connections.
- Clearance distances shall be maintained for all electrical cabinets, transformers and disconnects.
- Personal protective equipment (PPE) and tools suitable for electrical work shall be used.
- Extensions cords shall only be used for temporary power and short duration.
- Avoid running electrical cables across roads, walkways, floors, through doorways and over sharp edges.
- Live work is prohibited unless regulatory requirements are followed.

Entering or working in confined spaces

Valmet Minimum Safety Standard

- A confined space is a place which is substantially enclosed with limited entry/exit points and is not meant for continuous occupancy or where serious injury can occur from hazardous substances or dangerous conditions.
- Avoid entry to a confined space whenever possible, for example by doing the work from outside or using remote controlled equipment.
- If entry to a confined space is unavoidable, a permit-to-work is required before people are allowed to enter or work in the confined space.
- Plan and put into practice a safe system of work based on a risk assessment and identified precautions including:
  - Testing / monitoring the confined space atmosphere (and the immediately surrounding area if specified by a risk assessment) for gases and contaminants
  - Isolation of the space and lock out / tag out
  - Ensure continuous ventilation
  - Removal of residuals
  - Selection and use of suitable equipment and lighting
  - Safe access and exit
  - Required Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE)
  - An emergency rescue plan
- Only trained and suitable personnel can enter a confined space.
- A competent guard shall be stationed at the entry to the confined space to monitor entrance and perform non-entry rescue duties.

Exposure to hazardous substances

Valmet Minimum Safety Standard

- Hazardous substances shall be substituted with less hazardous alternatives whenever technically and economically feasible.
- Only hazardous substances that have been risk assessed, approved for the specific use and registered in a chemical register are allowed in our operations.
- All hazardous substances shall be clearly labelled in accordance with the globally harmonized system (GHS) symbols and meet other local requirements.
- Current Safety Data Sheets (SDS) are required from suppliers in the local language and made available at the workplace.
- Standard operating procedures shall define the adequate controls to minimize exposure associated with the storage, handling, usage, disposal and transportation of hazardous substance.
- Potential exposure to process hazards must be risk assessed before starting work on all customer sites and controls are implemented.
- Personnel must be trained in specific safe use, handling, disposal and protection measures.
- Personal protective equipment (PPE) and tools suitable for work involving hazardous substances shall be used.
- Hazardous substance storage shall be compliant with regulatory requirements, well ventilated, appropriate for the hazards and with secondary containment.
- Exposure to hazardous substances shall be monitored according to national occupational exposure limits and other requirements (for example health checks for people exposed to carcinogenic substances, special requirements for pregnant women).
- Explosive atmosphere environments shall be risk assessed and controlled.
- Valmet does not do asbestos work. Licensed service providers shall be used.

Hot work

Valmet Minimum Safety Standard

- Hot work is any work that involves burning, welding, using fire or spark producing tools, or that produces a source of ignition.
- Only trained, competent and authorized personnel are allowed to perform hot work.
- All hot works shall have a permit, unless performed in a designated hot work area.
- Review the hot work permit and/or safe work procedure before starting work
- Provide shielding and covering in all affected directions to contain sparks, flying debris and UV exposure.
- Make sure that all equipment is in good operating order before starting work.
- Ensure gas cylinders are properly stored upright and with a secure fastening.
- Flashback arrestors to be in place on both the torch and the gas cylinder.
- Ensure adequate local exhaust ventilation from toxic welding and cutting fumes where possible.
- Inspect the work area to ensure that all fuel and ignition sources are removed or isolated.
- Eliminate explosive atmospheres (such as vapours or combustible dust) or do not allow hot work.
- Wear appropriate personal protective equipment (PPE) such as a face shield, helmet respiratory protection and protective clothing.
- Ensure the availability of adequate fire protection equipment and trained fire watch/guard.
- Fire watch/guard must remain present after hot work ends for the time specified in the work permit.

Lock Out / Tag Out procedure

Valmet Minimum Safety Standard

- Any person performing activities with a risk of unintended activation of plant and/or systems is personally responsible for lock out/tag out with their own individual lock and tag. This is to be followed even in the event of group lockout procedure or if a customer and/or a supplier does their own lock out tag out.
- Only trained, competent and authorized personnel can perform work that requires lock out/tag out.
- Inform people in the affected area that a lockout procedure is under way
- Turn off the equipment and disconnect from all energy sources. Refer to the isolation procedure for the equipment.
- Release all residual energy (for example mechanical, potential, electrical, pneumatic, kinetic, hydraulic, heat or pressure).
- Lock out all energy sources by using locks.
- Tag the lock with your contact details.
- Test and try out the equipment by available local controls to ensure that power is disconnected. Switches are turned on, then off again.
- Perform work according to the work permit or work procedure.
- Remove your locks and tags when work is completed and inform co-workers and operation personnel.

Maintaining good order

Valmet Minimum Safety Standard

- Everyone is responsible for maintaining good order in their daily activities, in both temporary and permanent workplaces.
- Workplaces are set in order by
  - Identifying and arranging everything in order, for example use ideas from 5S/6S
  - Storing every item in its designated place
- Walkways, stairways and emergency exits
  - Are accessible and kept free of debris, tools and equipment, materials and other clutter
  - Have good lighting
- Cable management techniques are used when appropriate.
- Fire safety and first aid equipment are:
  - Available as needed in the workplace
  - Clearly identified with signage
  - Accessible and not blocked
  - Within their use-by-date and regularly inspected
- Waste collection containers are placed throughout the workplace and emptied regularly
- Regular safety inspections and housekeeping rounds are a routine
  - All safety inspections are documented
  - Give feedback and follow up corrective actions
- Unsafe areas are marked and guarded against until the conditions are safe

Manual handling

Valmet Minimum Safety Standard

- Manual handling is when we lift, lower, put down, push, pull or carry any load.
- Avoid or minimize manual handling and use mechanical aids whenever possible.
- Assess manual handling activities prior to starting, consider the task, individual, load and environment.
- Check for hazards and ensure clear lines of sight.
- For heavy or oversized loads, get assistance.
- Use Personal Protective Equipment (PPE) such as appropriate gloves and footwear.
- Use the correct lifting technique. Lift with your legs, not your back. Keep the load close to your body. Do not twist or overreach.
- Implement stretch and strengthen exercises to prevent strain from manual work.
- Train personnel in the early detection of ergonomic issues.

Mechanical lifting

Valmet Minimum Safety Standard

- All mechanical lifting activities must be assessed. This means:
  - Local procedures are defined and documented for all standard lifts.
  - Written lifting plans are made for complicated, non-routine lifts and are approved by the responsible supervisor.
- Only trained and authorized personnel are allowed to operate lifting equipment.
- Lifting equipment and accessories must be inspected prior to use and periodically as per local regulations and records must be stored.
- Ensure mobile lifting equipment is used on firm and stable ground.
- Consider weather conditions before starting lifting operations.
- Co-ordinate and communicate with other ongoing activities.
- Ensure you know the weight of the load and never exceed the maximum lifting capacity of devices or accessories.
- Loads are to never be lifted over people.
- Never stand, walk or work under a suspended load or in the danger zone.
- Lifting zones must be isolated and either barricaded or monitored by an appointed person.
- Avoid manually handling the load. Where appropriate, use a tag-line or a similar guiding equipment.
- The use of lifting equipment shall comply with the minimum safety standard for using work equipment (page 15).

Personal Protective Equipment (PPE)

Valmet Minimum Safety Standard

- At a minimum this PPE shall be used in accordance with relevant training in all Valmet workshops and on customer and supplier sites:
  - Safety glasses
  - Protective footwear (unless you are a visitor within marked out areas)
  - Hearing protection as per local requirements
  - High visibility workwear / vest for visitors
  - Helmets on project sites
  - Valmet workwear appropriate for the task
  - Face visor and safety glasses (double protection) when work involves grinding, flying particles or chips, and/or splashes or sprays from hazardous liquids.
  - Other task specific PPE (for example cut resistant gloves) shall be used as defined in risk assessments and work procedures.
  - Helmets shall always be used with appropriate chin straps
- If a customer, supplier or Valmet organization has a higher safety standard than this minimum, then the highest standard applies.
- Only use PPE that is in good condition, is calibrated and within the use-by-date.
- All PPE shall conform to applicable product safety standards (for example CE marked, ANSI marked).
- The use of bump caps is only permitted where the job itself requires it (subject to risk assessment).
- Gas and radiation detectors, as well as radiation monitoring devices, shall be used when identified in risk assessments.
- Where possible PPE should be personal.

Safeguarding of machines

Valmet Minimum Safety Standard

- A guard is a physical or other barrier which prevents contact with moving parts or controls access to dangerous areas of plant.
- All machines, new and second-hand, shall conform to national product safety standards when taken into operation.
- All machinery shall be safeguarded to prevent access to dangerous parts according to this hierarchy:
  - a permanently fixed physical barrier (guard)
  - an interlocked physical barrier (interlocked guards)
  - a removable physical barrier securely fixed in position (fixed guard)
  - a presence-sensing safeguard system (laser scanner, light curtain)
  - a safe system of work for unguarded areas
- when hazards cannot be eliminated, warning signs and PPE shall be used.
- Guards shall be appropriate and practical for the machine, robust, securely attached and not easily by-passed, removed or disabled.
- Guards shall be maintained in good working order, monitored and reviewed for effectiveness.
- Guards shall be kept in position while the machinery is operated.
- Emergency stop devices are required on all machines but shall never be the only method of controlling hazards.
- All machines shall be periodically reassessed to ensure all hazards are identified and all risks controlled.
- Operations shall routinely inspect and report immediately any deficiencies in guards.

Using work equipment

Valmet Minimum Safety Standard

- Work equipment includes any machine, apparatus or tool used at work for example lifting equipment, handheld tools and power tools.
- Only competent personnel that have received instruction and necessary training can operate work equipment.
- Authorization for use of specific work equipment must be provided when required by local regulations.
- Tasks shall be planned and controlled so that the right equipment is used for the job.
- Always inspect work equipment before use to check it is in good working condition and that guards are in place.
- Remove all jewellery, loose clothing and secure loose hair before using equipment with entanglement risks.
- Work equipment shall have applicable approvals (such as CE-marking, ANSI or equivalent) when taken into use.
- User manuals and/or work procedures are available in the workplace for equipment.
- No homemade or modified tools are allowed.
- Document regular and preventative maintenance.
- Inspections are performed by an authorized person at regular intervals. Inspections are always to be carried out before the equipment is used for the first time or after major repairs. Required records are maintained at the workplace.
- All unsafe equipment shall be immediately removed from service and tagged DO NOT USE

Working around radiation

Valmet Minimum Safety Standard

- An approved Radiation Safety Program must be in place before possessing or handling radioactive material or radiation sources.
- Potential exposure to hazards associated with radiation shall be assessed by doing a risk assessment before starting work and controls are implemented.
- Radiation monitoring devices shall be used when radiation hazards are identified.
- Radiation sources shall be maintained by trained, competent and authorized personnel.
- Monitoring devices shall be calibrated in accordance with manufacturer specifications.
- Radiation work shall be performed by trained, competent and authorized personnel in accordance with the Radiation Safety Program
- Radiation work shall be scheduled, planned, barricaded and communicated to avoid exposure to personnel.
- Exposure to radiation shall be monitored according to national occupational exposure limits and other requirements.
- Permits for radiation sources shall be maintained and rules for transportation of hazardous goods followed.
- Radiation safety incidents shall be reported immediately to regulatory authorities as required.
- Radioactive material shall only be handled by authorized personnel.

Working at height

Valmet Minimum Safety Standard

- Work at height is all work that has a potential for fall from heights.
- Avoid working at height where possible.
- Only trained and suitable personnel can work at height.
- Fall prevention measures such as guardrails, hole covers and working platforms shall be prioritized before using personal fall arrest systems.
- All holes and openings must be covered and/or protected. Covers and protections must be marked, fixed in position and strong enough to withstand the foreseeable load.
- Walking and working areas at height should be maintained in good order, dry and clean.
- Use only scaffolding that has been erected, inspected and tagged as safe for use by a competent person. Report any unauthorized modifications and mark ‘do not use’.
- Personal fall arrest systems must be used when:
  - using mobile elevated working platforms (such as boomlifts)
  - there are unprotected or open-sided walking and working surfaces with potential for fall
  - required by the Customer or local regulation
- All personal fall arrest systems shall be safe, compliant and regularly inspected and checked before use.

- Personal fall arrest systems shall be connected to an approved and secure anchor point. The use of double lanyards and trauma relief straps are recommended.
- Provide protection from falling objects by using for example tool belts or buckets, safety nets, kick boards and/or isolating the danger zone.
- Take precautions when working on or near fragile surfaces. Make sure you do not overload or overreach when working at height
- An emergency rescue plan is required when using a personal fall arrest system and working alone shall be controlled.
- Step ladders are only allowed when a risk assessment has determined that the activity is low risk and of short duration.

Definitions of key terms used in these standards

Term	Definition
Qualified	Officially recognized as being trained to perform a particular job; certified or licensed.
Competent	Having the necessary ability, knowledge, or skill to do something successfully.
Authorized	Having official permission or approval granted by Valmet
Trained	Having been taught a particular skill or type of behavior through practice and instruction over a period of time.
Suitable	Fit, able, appropriate.
Personnel	Valmet employees and/or external workers.
Risk assessment	Overall process of risk identification, risk analysis and risk evaluation.
Permit-to-work	Written permission to perform high risk work according to a pre-agreed plan.

Life Saving Rules

- The Minimum Safety Standards are the main rules that we need to follow in our daily work to keep us safe. Some of these rules are so important that they can literally mean the difference between life and death.
- With the aim of eliminating work-related fatalities and life-changing injuries, the Valmet Life Saving Rules were designed. These rules are deemed to be life-critical.
- It is obligatory for all Valmet employees to follow these rules in all Valmet operations globally. These rules apply also for all contractors working at our locations or under Valmet's supervision.

Valmet Life Saving Rules

Protect yourself against fall when working at heights

Never be under suspended loads or lift loads over people

Verify equipment isolation and zero energy before work begins

Obtain a valid work permit before entering a confined space

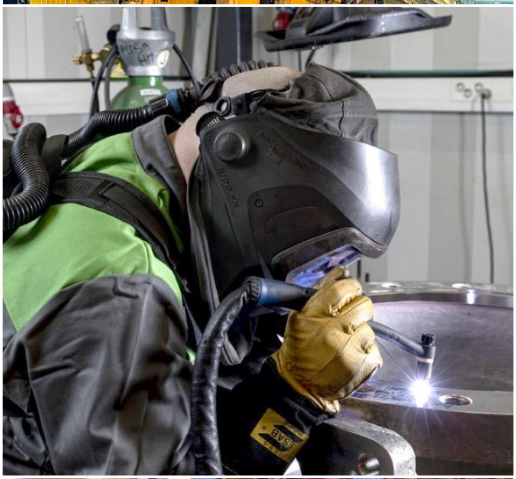

Valmet
FORWARD
Service och reparationer av industriutrustning Tel.

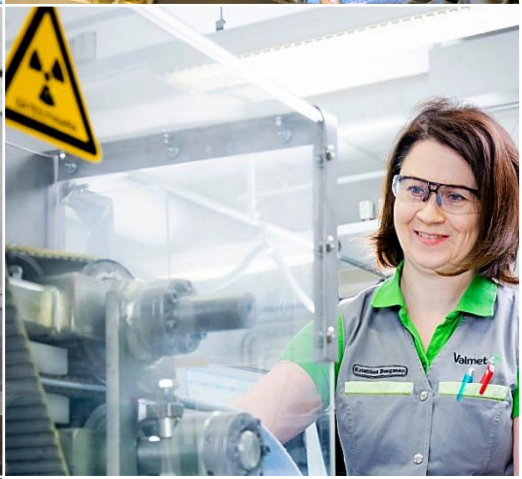

Valmet
FORWARD


DANGER


HAPONKESTÄVÄ TERÄS


KUNZMANN
FRÄSMASCHINEN
WF 400 CNC

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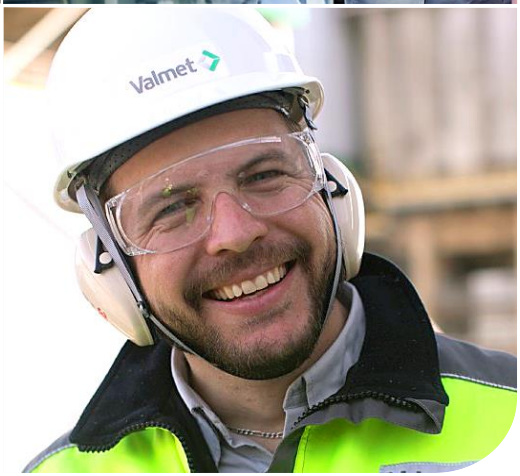
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