

Title WORK WITH HIGH-PRESSURE JETS				Identifier HMSS-348	
Document Type Anvisning	Relevant unit INOVYN Sverige	Verifier Anne-Louise Thång	Approver Tommy Tengberg	Revision 5	Valid to 2025-07-13

These instructions have been revised.

1. GENERAL

These instructions describe the safety measures required in connection with high pressure washing. The instructions relate to use of high pressure units with a pressure of over 200 bar. Please note that when using high pressure washing equipment with between 25 and 200 bar, a risk assessment must be carried out to identify the requirements in relation to protective equipment (large tight-fitting glasses, boots etc.), and to check the state of the equipment before use.

2. RESPONSIBILITIES AND TRAINING

Liability

Safety coordinator INOVYN

For each high pressure washing job, INOVYN must appoint an INOVYN safety coordinator. This person is responsible for ensuring compliance with the requirements in these instructions. INOVYN's safety coordinator should preferably be a member of the UH-organisation

Operations representative

A representative from each respective operations department must be appointed for each high pressure washing job to be carried out. The operations representative must be helpful and able to assist with knowledge and communicate requirements to the safety coordinator so that the high pressure washing job can be carried out safely.

Safety coordinator high pressure washing company

The high pressure washing company must have an appointed safety coordinator. This person

- will participate in risk assessments.
- check compliance with INOVYN's other safety rules.
- discuss the risks associated with the high pressure washing job before the start of the work with all parties involved.
- is responsible for evaluating restrictions on working hours due to vibrations and uncomfortable working positions. (This will be reviewed in connection with the review of the contractor's HSE management system.)
- reviews the job upon completion.

Training

High pressure washing equipment may only be handled by staff with documented training.

In normal high pressure washing activities, at least 2 persons with documented training must be present. In case of work inside tanks, at least 3 persons with documented training must be present.

3. RISK ASSESSMENT AND JOB SAFETY ANALYSIS (JSA)

Risk assessment

When choosing the high pressure washing method and equipment, the equipment/method with the lowest possible risk level must always be selected. See the table below:

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Risk level	Description
Level 6	Manual high pressure washing with flexible hose or lance without marking ring will not be performed
Level 5	Manual high pressure washing with flexible hose or fixed lance with only marking ring
Level 4	Manual washing with a flexible hose with marking ring and stop function
Level 3	Manual high pressure washing equipment with stop function
Level 2	Semi-automatic equipment where the operator is protected during work.
Level 1	Automatic remote control equipment without manual involvement. Carried out in a dedicated area.

Job safety analysis (JSA)

A job safety analysis must always be carried out prior to high pressure washing and a

Checklist for high pressure washing

[Checklist for high pressure washing](#) must be completed. The checklist is filled in by INOVYN's safety coordinator and operations representative. The checklist includes a worksite visit where the operations representative must participate. The JSA and checklist must be enclosed to the work permit.

High pressure washing over several working days

Certain sections of the checklist must be checked and signed by the operations representative if high pressure washing is carried out over several working days:

Work permits

A work permit is required for all jobs involving high pressure washing, including high pressure washing in places where no permits are normally required, such as workshops.

Instructions

For high pressure washing carried out often and under similar conditions, the JSA may be replaced by instructions.

4 PERSONAL PROTECTIVE EQUIPMENT

At risk levels 1 and 2 in table above, the following protective equipment, at a minimum, must be used:

- rubber boots with steel cap
- full-coverage waterproof workwear
- protective helmet
- hearing protection
- visor and glasses with side protection
- chemical resistant gloves with long cuffs

At risk level 3 and above, the work clothes must be made of Kevlar material in addition to the above.

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The JSA must indicate whether additional protective equipment is needed, depending on the nature of the work.

5. THE WORKSITE

High pressure washing of dismantled and loose equipment is preferably carried out in a dedicated washing site.

Cables and other sensitive equipment must be protected to avoid damage. Loose equipment must be removed.

The worksite must be blocked off with a red sign. Unauthorised persons must not be able to get within less than 6 metres of the washing equipment and the worksite. Please pay special attention when blocking off at the back of a heat exchanger.

All staff must be outside a safety area from the jet which is 90 ° from both sides of the jet.

Ensure that the washing water can be taken care of and led to a suitable place/drain.

6. HIGH PRESSURE WASHING EQUIPMENT

Only one high pressure washing device may be connected to a unit.

Lances, sprayer nozzles and pressure hoses must be individually labeled and undergo preventive maintenance and be checked according to routines. The equipment must be checked prior to each job.

The length of the lance must be between 1.5 and 3 metres between the sprayer nozzle and the pistol grip. A shorter lance may be used inside tanks and columns, however this must be documented and justified in the JSA.

If the equipment is not remote controlled, one person must always be in attendance at the unit/pump. This person may not leave the pump unattended when in operation.

An evaluation must be made as to whether there is a need for earthing of the pressure pump, lance and hose.

7. PERSONAL INJURIES IN CONNECTION WITH HIGH PRESSURE WASHING

The water jet is enormously powerful and can cause fatal injuries if it hits a person. All injuries in connection with direct contact with a high pressure jet as well as suspected injuries must be examined by a doctor. The high pressure washing contractor must have an information sheet on high pressure washing injuries at the worksite. INOVYN's janitor must have an equivalent information sheet.