



1. TITLE OF THE CERTIFICATE (NL)

Diploma Beroepsonderwijs
Kwalificatie: Eerste monteur service en onderhoud werktuigkundige installaties
Kwalificatiedossier: Service- en onderhoudstechniek

In the original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Certificate Senior Secondary Vocational Education
Qualification: Skilled mechanic service and maintenance mechanical installations
Qualification file: Service and maintenance technology

This translation has no legal status

3. PROFILE OF SKILLS AND COMPETENCES

Core task 1: Inspects equipment, installations and systems

- 1.1 Prepares for the inspection of equipment, installations and systems
- 1.2 Takes precautions prior to inspection work
- 1.3 Carries out a sensory inspection of equipment, installations and systems
- 1.4 Takes measurements and tests equipment, installations and systems
- 1.5 Prepares a diagnosis and reports on the results
- 1.6 Completes inspection work on equipment, installations and systems

Core task 2: Optimises equipment, installations and systems and repairs faults

- 2.1 Prepares work to resolve faults and to optimise equipment, installations and systems
- 2.2 Takes precautions to resolve faults and to optimise equipment, installations and systems
- 2.3 (Dis)Assembles, adjusts and repairs components of equipment, installations and systems
- 2.4 Checks and tests work carried out on equipment, installations and systems
- 2.5 Hands over equipment, installations and systems
- 2.6 Completes maintenance and modification work

Core task 3: Localises faults in mechanical engineering equipment and systems

- 3.1 Prepares the tracing of faults on mechanical installations
- 3.2 Localises and analyses (complex) faults in mechanical installations
- 3.3 Adjusts and sets mechanical installations and equipment
- 3.4 Supervises less experienced colleagues

Core task 4: Prevents the release of carbon monoxide in gas incineration systems

- 4.1 Carries out preventive inspection on the entire gas incineration system
- 4.2 Prevents flue gases from entering the accommodation space
- 4.3 Prevents incomplete incineration in the gas incineration system
- 4.4 Completes carbon monoxide prevention work, reports on findings and advises the customer

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE

The Skilled mechanic service and maintenance mechanical installations works at a service organisation focused on the service (repair) and maintenance of systems for hot tap water and climate control (such as heat pumps, mechanical ventilation systems, hot water appliances, gas appliances, refrigeration machines, central heating boilers, solar boilers). These can be large and small companies that operate regionally and/or nationally. He does

*** Explanatory note**

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://www.europass.cedefop.europa.eu/>

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4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE

not work on systems subject to obligatory inspection according to the Activities Decree and the Decree on Emission Requirements for Medium-sized Heating Installations (BEMS).

5. OFFICIAL BASIS OF THE CERTIFICATE

<p>Name and status of the body awarding the certificate The certificate issued on completion of the programme is signed by the examination board at the school where the pupil attended the programme.</p>	<p>Name and status of the national/regional authority providing accreditation/recognition of the certificate Ministry of Education, Culture and Science</p>																				
<p>Level of the certificate (national or international) Qualification level 3 of the Dutch VET qualification structure Characteristics: implementation of more than just the own block of tasks. The professional is able to account for his or her actions towards colleagues, and monitors and supervises the work of others. The range of tasks also includes drafting work preparation procedures. NLQF-niveau 3 - EQF level 3 - ISCED 3C</p>	<p>Grading scale / Pass requirements</p> <table border="0"> <tr><td>10</td><td>excellent</td></tr> <tr><td>9</td><td>very good</td></tr> <tr><td>8</td><td>good</td></tr> <tr><td>7</td><td>very satisfactory</td></tr> <tr><td>6</td><td>pass</td></tr> <tr><td>5</td><td>fail</td></tr> <tr><td>4</td><td>unsatisfactory</td></tr> <tr><td>3</td><td>very unsatisfactory</td></tr> <tr><td>2</td><td>poor</td></tr> <tr><td>1</td><td>very poor</td></tr> </table>	10	excellent	9	very good	8	good	7	very satisfactory	6	pass	5	fail	4	unsatisfactory	3	very unsatisfactory	2	poor	1	very poor
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<p>Access to next level of education/professions The Skilled mechanic service and maintenance mechanical installations can:</p> <ul style="list-style-type: none"> • advance to the position of Service and maintenance technician mechanical systems (where he will be deployed on complex systems), maintenance technician measurement and control systems; or to technician gas (infrastructure systems); • broaden his skills to Skilled mechanic service and maintenance gas turbines, Skilled mechanic service and maintenance electrotechnology and instrumentation; Skilled mechanic service and maintenance mechanical engineering or professions in refrigeration technology; • within the labour market advance to the position of project coordinator (no specific training). 	<p>International agreements Skilled mechanic service and maintenance mechanical installations is not a regulated profession in the Netherlands. However, the education and training for this profession on qualification level 3 is regulated under the European directive 2005/36/EC, amended by directive 2013/55/EU. The regulated education and training gives access to regulated professions at the level of a diploma according to article 11 of this directive.</p>																				
<p>Legal basis Act on Vocational Education and Training (WEB), registered number of qualification (crebo): 25821 The education and training for this qualification is offered as of 01-08-2022.</p>																					

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

Senior secondary vocational education features two learning pathways: the school-based pathway (bol) and the training on the job pathway (bbl).

In the school-based pathway, the majority of the course consists of theory at school. The extent of the practical component (vocational practice) is between 20% and 60%. In the training on the job pathway, the extent of vocational practice is at least 60% of the course. The participant works four days a week in a training company, and attends school for theory subjects just one day a week.

In principle it is possible to follow both learning pathways, but which pathway is offered will depend on the individual educational institution.

<p>Average duration of the education/ training leading to the certificate</p>	<p>3 years (4800 study hours) (depending on previous education)</p>
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Entry requirements

The certificate preparatory vocational secondary education (vmbo) advanced vocational programme, combined programme, or theoretical programme, or a comparable level.

7. ADDITIONAL INFORMATION

Dutch senior secondary VET is based on qualification files, that each contain one or more qualifications. The information included in part 3 and 4 is derived directly from the qualification file determined by the Minister of Education, Culture and Science. The complete qualification file can be found at kwalificaties.s-bb.nl, only in Dutch.

Optional subjects are linked to the qualification. The optional subjects have a total size of 15% of the course duration. The optional subjects completed by the student are listed on the certificate.

Additional information, including a description of the Dutch national qualifications system, is available at the Netherlands National Reference Point (NRP): www.s-bb.nl. The NRP is the information centre for vocational qualifications in the Netherlands. SBB has been appointed in this capacity by the Ministry of Education, Culture and Science.