

## 1. TITLE OF THE CERTIFICATE (NL)

**Diploma Beroepsonderwijs**  
**Kwalificatie: Eerste monteur mechatronica**  
**Kwalificatiedossier: Mechatronica**

In the original language

## 2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

**Certificate Senior Secondary Vocational Education**  
**Qualification: Skilled mechatronics mechanic**  
**Qualification file: Mechatronics**

This translation has no legal status

## 3. PROFILE OF SKILLS AND COMPETENCES

Core task 1: Makes electro-technical and mechatronic products

- 1.1 Does preparatory work for making electro-technical and mechatronic products
- 1.2 Compiles electro-technical and mechatronic products
- 1.3 Compiles and tests electro-technical and mechatronic products
- 1.4 Completes the making of electro-technical and mechatronic products

Core task 2: Installs and tests mechatronic products

- 2.1 Prepares the installation and testing of mechatronic products
- 2.2 Constructs mounting surfaces
- 2.3 Places electro-technical and mechanical engineering components
- 2.4 Connects components
- 2.5 Installs mechatronic products
- 2.6 Regulates and adjusts mechatronic products
- 2.7 Tests mechatronic products
- 2.8 Assists in testing new products
- 2.9 Completes the installation and testing of mechatronic products

Core task 3: Maintains mechatronic products

- 3.1 Localises malfunctions
- 3.2 Performs maintenance and modifications
- 3.3 Completes maintenance on mechatronic products

Core task 4: Supervises work

- 4.1 Consults on work to be carried out
- 4.2 Plans and organises the execution of the work
- 4.3 Supervises the progress of the work

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

In mechatronic companies, devices, machines or parts of machines are manufactured. These are used to carry out physical, movement, thermal and control processes, for example. The control process concerns the control of the physical process. This includes lifts, all kinds of placement and sorting machines (pick and place), filling and packaging machines, welding robots, fully automatic milking machines and copy machines. The mechatronics technician mainly works at medium-sized and larger companies that belong to the machine industry and

**\* 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

equipment construction sector. This concerns both supplying companies that supply semi-finished products and companies that produce a complete end product. The Mechatronics mechanic performs maintenance on mechatronic products.

#### 5. OFFICIAL BASIS OF THE CERTIFICATE

<p><b>Name and status of the body awarding the certificate</b> 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><b>Name and status of the national/regional authority providing accreditation/recognition of the certificate</b> Ministry of Education, Culture and Science</p>																				
<p><b>Level of the certificate (national or international)</b> 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><b>Grading scale / Pass requirements</b></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><b>Access to next level of education/professions</b> The Skilled mechatronics mechanic can develop to become a Technician mechatronic systems. He can also expand his area of expertise to mechatronics or service professions.</p>	<p><b>International agreements</b> Skilled mechatronics mechanic 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><b>Legal basis</b> Act on Vocational Education and Training (WEB), registered number of qualification (crebo): 25340 The education and training for this qualification is offered as of 01-08-2015.</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><b>Average duration of the education/ training leading to the certificate</b></p>	<p><b>3 years (4800 study hours) (depending on previous education)</b></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](http://kwalificaties.s-bb.nl), only in Dutch.

## 7. ADDITIONAL INFORMATION

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](http://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.