

1. TITLE OF THE CERTIFICATE (NL)

Diploma Beroepsonderwijs
Kwalificatie: Technicus mechatronica
Kwalificatiedossier: Mechatronica

In the original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Certificate Senior Secondary Vocational Education
Qualification: Mechatronics technician
Qualification file: Mechatronics

This translation has no legal status

3. PROFILE OF SKILLS AND COMPETENCES

Core task 1: Manufactures mechatronic products

- 1.1 Prepares the manufacture of mechatronic products
- 1.2 Manufactures mechatronic (sub) products
- 1.3 Installs mechatronic components on a mounting board and checks the assembly
- 1.4 Connects mechatronic products and (sub) products

Core task 2: Installs or modifies mechatronic products and/or systems

- 2.1 Gathers information
- 2.2 Makes technical sketches for the installation or modification
- 2.3 Elaborates the design for the installation or modification
- 2.4 Installs and checks technical connections of mechatronic products and/or systems
- 2.5 Sets and adjusts mechatronic products and/or systems
- 2.6 Tests installed mechatronic products and/or systems for functioning
- 2.7 Completes the installation or modification work

Core task 3: Supervises and manages the work process

- 3.1 Coordinates the work with all parties involved
- 3.2 Plans and organises the implementation of the work
- 3.3 Monitors the progress of the work process and the quality
- 3.4 Instructs and supervises colleagues

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

The work of the Mechatronics technician is carried out in a variety of contexts, at various locations and in various types of company. The Mechatronics technician works at both small and (very) large electrical engineering and metalworking companies in industry and machine building, but also at Maintenance Repair Overhaul organisations. The specialist field of mechatronics consists partly of mechanical engineering and partly electrical engineering (and partly control engineering). The context in which the Mechatronics technician works determines the work he/she carries out and the requirements imposed on that work. The Mechatronics technician can be employed at metalworking companies in industry and machine building, mechatronic and electrical engineering companies or in the technical department of various companies. The Mechatronics technician is broadly deployable and works together with colleagues in other disciplines. The work is undertaken within electrical engineering, electronic engineering and mechanical engineering. He/she can also come into contact with IT

*** 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

(hardware) and software (programming robots, data security), measurement and control engineering, control technology, robotics and mechanical engineering.

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 4 of the Dutch VET qualification structure Characteristics: non-job related skills such as tactical and strategic capacities. The professional bears his or her own responsibility, which is not only related to practical implementation in terms of monitoring and supervision, but also a more formal, organisational responsibility. The range of tasks also includes drafting new procedures. NLQF-niveau 4 - EQF level 4 - ISCED 3A</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 Mechatronics technician can advance to senior secondary vocational education positions such as project manager or transfer to higher professional education study programmes such as Mechatronics or Mechanical engineering. From the specialist field of mechatronics, it is possible to broaden professional skills to service professions.</p>	<p>International agreements Mechatronics technician is not a regulated profession in the Netherlands. However, the education and training for this profession on qualification level 4 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): 25893 The education and training for this qualification is offered as of 01-08-2023.</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.

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. 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.