



## 1. TITLE OF THE CERTIFICATE (NL)

**Diploma Beroepsonderwijs**  
**Kwalificatie: Machinebouwer**  
**Kwalificatiedossier: Machinebouw mechatronica**

In the original language

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

**Certificate Senior Secondary Vocational Education**  
**Qualification: Mechanical engineer**  
**Qualification file: Mechanical engineering mechatronics**

This translation has no legal status

## 3. PROFILE OF SKILLS AND COMPETENCES

The most important duties of a Mechanical engineer are:

Core task 1: Produces sub-products and builds machines and/or mechatronic products together

- 1.1 Prepares working duties
- 1.2 Produces the assembly base of the machine
- 1.3 Produces sub-products
- 1.4 Places parts by means of connection techniques
- 1.5 Connects parts and sub-products
- 1.6 Instructs and supervises less experienced colleagues

Core task 2: Tests machines and/or mechatronic products

- 2.1 Prepares working duties
- 2.2 Regulates and adjusts machine/mechatronic product
- 2.3 Tests machines and mechatronic products by means of test plan
- 2.4 Assists programmer, operating technician and/or electro technician with testing prototypes
- 2.5 Manages and archives test data

Core task 3: Installs and maintains machines and/or mechatronic products and sets these

- 3.1 Prepares working duties
- 3.2 Installs machines and mechatronic products
- 3.3 Regulates, sets and aligns machines and mechatronic products
- 3.4 Administers and archives data

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

The Mechanical engineer mainly works in medium-sized and larger metalwork firms that belong to the machine and appliances construction sector. This includes both supply companies that deliver semi-finished products and companies that produce the complete final product, such as mechatronic products and/or machines.

## 5. OFFICIAL BASIS OF THE CERTIFICATE

**\* 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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#### 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 level 3 - EQF level 3 - ISCED 3C</p>	<p><b>Grading scale / Pass requirements</b></p> <table style="border: none;"> <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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6	pass																				
5	fail																				
4	unsatisfactory																				
3	very unsatisfactory																				
2	poor																				
1	very poor																				
<p><b>Access to next level of education/professions</b> The Mechanical engineer can move on to level 4 all-round mechanical engineer after several years of work experience. He can also broaden into level 3 mechanic/tester mechatronics, level 3 service and maintenance mechanic, level 3 service mechanic electrotechnique, or level 3 skilled mechanic electro technical industrial products and systems.</p>	<p><b>International agreements</b> The profession of Mechanical engineer is not regulated 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): 91091 The education and training for this qualification is offered as of August 1, 2008.</p>																					

#### 6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

<p>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>	
<p><b>Average duration of the education/ training leading to the certificate</b></p>	<p><b>3 year(s) (4800 study hours) (depending on previous education)</b></p>
<p><b>Entry requirements</b> The certificate preparatory vocational secondary education (vmbo) advanced vocational programme, combined programme, or theoretical programme, or a comparable level.</p>	

#### 7. ADDITIONAL INFORMATION

<p>Dutch senior secondary VET is based on qualification files, that each contain one or more qualifications. The information in section 3 and 4 is drawn directly from the qualification file, that is composed by the Centre of Expertise. The complete qualification file is available at <a href="http://www.kwalificatiesmbo.nl">www.kwalificatiesmbo.nl</a>, only in Dutch.</p> <p>Additional information, including a description of the Dutch national qualifications system, is available at the Netherlands National Reference Point (NRP) for VET: <a href="http://www.nlnrp.nl">www.nlnrp.nl</a></p> <p>SBB has been appointed by the Ministry of Education, Culture and Science as NRP.</p>
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