



1. TITLE OF THE CERTIFICATE (NL)

Diploma Beroepsonderwijs
Kwalificatie: Researchinstrumentmaker
Kwalificatiedossier: Fijnmechanische techniek

In the original language

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Certificate Senior Secondary Vocational Education
Qualification: Research instrument maker
Qualification file: Precision engineering

This translation has no legal status

3. PROFILE OF SKILLS AND COMPETENCES

The most important duties of a Research instrument maker are:

Core task 1: Carries out machining operations

- 1.1 Prepare machining operations
- 1.2 Make machine ready for production
- 1.3 Carry out machining operation
- 1.4 Measure and check his own work
- 1.5 Complete machining operations (in context)
- 1.6 Maintain equipment

Core task 2: Makes CNC programmes

- 2.1 Prepare the writing of CNC programme
- 2.2 Write CNC programmes
- 2.3 Test CNC programmes
- 2.4 Manage and archive project data

Core task 3: Builds and tests products

- 3.1 Assemble products
- 3.2 Test products

Core task 4: Designs prototypes

- 4.1 Analyzes product specifications
- 4.2 Makes technical drawings

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

The work of the Research instrument maker is generally carried out in a special workshop in the company. The work can also be performed under special conditions, such as in conditioned rooms, 'clean room'.

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/>

© European Communities 2002 - Version 2010

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 level 4 - EQF level 4 - ISCED 3A</p>	<p>Grading scale / Pass requirements</p> <table> <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
10	excellent																				
9	very good																				
8	good																				
7	very satisfactory																				
6	pass																				
5	fail																				
4	unsatisfactory																				
3	very unsatisfactory																				
2	poor																				
1	very poor																				
<p>Access to next level of education/professions Having completed this course of studies, transfer is possible to higher professional education.</p>	<p>International agreements The profession of Research instrument maker is not regulated 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): 94360 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>Average duration of the education/ training leading to the certificate</p>	<p>4 year(s) (6400 study hours) (depending on previous education)</p>
<p>Entry requirements 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 www.kwalificatiesmbo.nl, 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: www.nlnrp.nl</p> <p>SBB has been appointed by the Ministry of Education, Culture and Science as NRP.</p>