

COUNTRY REPORT - ITALY

Introduction

In Italy, due to the prevalent competences of regulating VET delivered to 21 regional authorities, the recognition of qualifications and learning outcomes from one region to another is still critical. Recent developments – however – should lead to the definition of national occupational and professional standards, based on the analysis of work processes. Three work groups has been created by the Ministry of Education (MIUR) in order to elaborate standards and procedures for the assessment of learning outcomes, according to EU principles. These groups include regional authorities and the social partners, and they are expected to elaborate sectorial standards identifying typical work processes, areas of activities, operative performances characterizing each area and knowledge, skills and competences associated to them.

In the meanwhile a comprehensive model for the recognition and validation of learning outcomes is in the elaboration phase, and many regions are actually implementing systems of validation. A national technical group dealing with competences is also expected to elaborate at the national level a certain number of standards, in order to ensure homogeneity between regional systems:

- *Standard minimi di processo* (process standards), related to the modalities for identifying, assessing and certifying learning outcomes
- *Standard minimi di attestazione* (minimum standards of certifications), related to form and validity of attestations delivered by each region
- *Standard minimi di sistema* (accreditation standards) defining rules and modalities for accrediting institutions and providers active in the validation of learning outcomes.

Summing up, the latest regulations are progressing towards the design of a more efficient and homogeneous national qualifications framework, based on a LO orientation, more flexible qualifications and assessment standards. ECVET can support European mobility which is now increasing for students and workers and can also support networking among training providers, communication between VET and the labour market and recognition of learning outcomes from non-formal and informal learning.¹

As far as the application of ECVET principles is concerned, the Italian perspective – particularly concerning the learning outcomes approach - is closely linked to the evolution of the relationships

¹ “Monitoring ECVET practices”, Cedefop, Luxembourg, Publication Office of the European Union, 2013.

between formal education and training pathways and professional integration of young people into the labor market. There is no single law that regulates the transition from compulsory education and initial vocational training, but each category has specific rules that are based on their National Collective Labour Agreement (CCNL). This prevents the creation of a homogeneous system of recognition and assessment of skills (Learning Outcomes), as there is no regulation about skills certification that is valid both at interregional and national levels.

In Italy, the students who finish compulsory education and who do not engage in a course of study in high schools or technical institutes, can take the path of apprenticeship, which is nationally regulated by the Consolidation Act (TUA, Testo Unico per l'Apprendistato), established by Legislative Decree n. 167 of 14th September 2011. The associations that represent workers and employers have signed a total of more than 50 National Collective Labour Agreement (CCNL), which serve to regulate the relations between workers and employers. The term " collective " indicates the validity extended equally to all workers covered by the contract; " national " indicates its validity for all companies that are located within the Italian territory.

Collective bargaining takes place at different levels: interconfederal (in which the State often participate as mediator), sectorial, local and enterprise. The contracts that have greater relevance today are the national collective labor agreements concluded at the category level . Although the national collective bargaining agreement represents the de facto standard with regard to compliance with the principles and application of all the rules that regulate the labor market, every company can still integrate the national contract according to its necessity .

The national labor contract is renewed every two years in the economic field, in order to fulfill the essential function of protecting the real wage, and generally has a duration of four years for the legislation.

Italian educational system in general

The education system in Italy is organised according to the subsidiary principle and autonomy of schools. The State has exclusive competence on general issues on education, on minimum standards to be guaranteed throughout the country and on the fundamental principles that Regions should comply with within their competences. Regions share their competences with the State on education issues while they have exclusive competence on vocational education and training. Schools are autonomous as for didactic, organization and research and development activities.

The education system is organised as follows:

- . Pre-primary school for children between 3 and 6 years of age;
- . first cycle of education lasting 8 years, made up of:
 - primary education (lasting 5 years), for children between 6 and 11 years of age;
 - lower secondary school (lasting 3 years) for children between 11 and 14 years of age;
- . second cycle of education offering two different pathways:
 - State upper secondary school (lasting 5 years) for students from 14 to 19 years of age. It is offered by “licei”, technical institutes and vocational institutes;
 - three and four-year vocational training courses (IFP) addressed to students who have completed the first cycle of education. It is organized by the Regions.
- . post-secondary non tertiary education offered through: post-qualification and post-diploma vocational courses organized by the Regions; Higher technical education and training courses (IFTS).
- . higher education offered by universities and the High level arts and music education system (Afam). Higher education is organised in first, second and third levels according to the Bologna structure.

Education is compulsory for 10 years, from 6 to 16 years of age, and covers the eight-year first cycle of education (5 years of primary school and 3 years of lower secondary school) and the first two years of the second cycle (DM 139/2007). After completion of the first cycle of education, the last two years of compulsory education (from 14 to 16 years of age) can be accomplished either in State upper secondary schools (licei, technical institutes and vocational institutes), or through the three-year vocational education and training courses, falling under the competence of the Regions (law 133/2008). In addition, all have the right/duty (diritto/dovere) to education and training for at least 12 years in the education system or, anyhow, until they have obtained a three-year vocational qualification within 18 years of age (law 53/2003).

Finally, 15-year olds can attend the last year of compulsory education also through the apprenticeship, previous specific agreement signed by the Regions, the Ministry of labour, the Ministry of education and trade unions (law 183/2010).

Fig. 1 – overview of the Italian educational system



Once compulsory schooling has been accomplished, pupils who don't prosecute their studies receive a certification attesting compulsory education fulfilment and competencies acquired; these latter constitute formative credits for the attainment of any professional qualification.

Access to both university and AFAM (High Artistic and Musical Education) tertiary education is reserved for students who passed the State exam at the end of upper secondary school. Yet, specific conditions for the admission are under the responsibility of the Ministry of education, University and Research (MIUR) or of each single university and Afam sector.

The three-year vocational qualification, as well as the four-year vocational diploma, both obtained at completion of regional vocational training courses, allow access to regional second level vocational training, which can be accessed also with an upper secondary education leaving certificate. This latter certificate also grants admission to Higher technical education and training courses (IFTS).

Vocational Training and Education in Italy and the apprenticeship

As seen in the previous chapter, at the end of the first cycle of education, students have the opportunity to attend the Vocational Schools.

It should be stressed that Italian professional qualifications are culturally of little value, both in terms of social recognition and for as regards the access to employment. This is due in part to the fragmented nature of the system, but is going through a process of change thanks to recent laws (law 92/2012 - "Fornero law", compliant law 53/2003 – Riforma “Moratti” della scuola,).

The VET system in Italy is organized on a regional basis, which implies the presence of significant differences from one area to another. The central state has however two fundamental roles in the system: on the one hand, it has exclusive power to define the general rules on education and the setting of minimum service levels (Article 117 of the Constitution); on the other, it manages the state vocational institutes, which have specific characteristics.

In relation to the different providers, The Vocational Training is divided into two pathways:

- Vocational education provided in the educational system (state vocational schools, or Istituti Professionali Statali).
- Vocational training under the responsibility of the Regional Authorities.

Vocational upper secondary education: it includes technical schools, (istituto tecnico) and vocational education, (istituto professionale).

In the technical and vocational institutes, the overall length of study will be 5 years e rilascia un diploma di livello EQF IV che consente anche l’accesso all’università. In questo percorso non è previsto una certificazione intermedia.

As for technical and vocational institutes are concerned, the new regulations foresee only 2 types of technical institutes divided in 2 sectors (instead of the previous 10 sectors and 39 branches):

- technical studies (9 branches: mechanics and energy; transportation and logistics; electronics; ICT; graphics and communication; chemical and biotechnologies; fashion; agriculture; food processing and agro-industry; building and environment).
- economic studies (2 branches: administration, finance and marketing; tourism).

Vocational institutes (managed by the State) are now divided into 2 macro-sectors with 6 branches

- services (4 branches: agriculture; health and social care; food and wine and hospitality; trade)
- industry and handicraft (2 branches: industrial and handicraft productions; maintenance and technical assistance).

The Initial vocational training is managed by the Regions which define the profile and is offered by training agencies (Vocational training centres) recognised at regional level.

The First-level (or basic) training, addressed to those who have completed the first cycle of education. These paths have a three-year length and lead to the obtainment of a regional

qualification certificate or to a qualification diploma (EQF III). Second-level training pathways are addressed to those who have completed the upper secondary level of education or who have obtained a first-level vocational qualification (EQF IV). Post-secondary education and training (non-tertiary) is organised both in the higher technical education and training system (ITS) and in the second-level vocational training courses managed by the Regions (IFTS courses).

Different forms of apprenticeship also exist, deriving by the evolution of a very old institute, radically reformed by the Act 167/2011; that model is now expecting to be improved and simplified by recent substantial changes (law 34/2014²). Apprenticeship – as a contract aiming at the same time at enabling a work experience and enhancing competences related to a professional profile (formative dimension) - is mainly devoted to facilitate the transition from education and training to work. In order to prepare for employment, youngsters can follow three main type of apprenticeship:

- a) achieving a qualification or a professional degree (Article 3, TUA);
- b) activate a professionalising apprenticeship contract (Article 4, TUA);
- c) complete a higher education, organized according to Bologna declaration principles (Article 5, TUA).

The most used, due to its greater adherence to the Italian cultural and historical situation, is definitely the kind of training that relates to “Professionalising apprenticeship”.

With respect to apprenticeship, legislative regulations define rules relevant to be considered in order to understand how ECVET principles can work:

1. Subjects between the ages of eighteen and twenty-nine years can be employed in all sectors of activity, both public and private, with a contract of apprenticeship or trade for the achievement of a vocational qualification purposes contractual. For individuals in possession of a professional qualification, obtained pursuant to Legislative Decree 17 October 2005 n. 226, the contract apprenticeship or craft can be concluded from the seventeenth year of age.
2. In respect of age of the apprentice and the type of contract qualification to be achieved, the inter-confederation agreements and collective agreements establish the duration and mode of training delivery for the acquisition of technical and professional skills and expertise, as a function of the professional profiles and of the systems of classification and grading of staff. The collective

² The Government, with the changes introduced by art.2 of law 34/2014, has sought to liberalize the apprenticeships, modifying certain provisions. The issues that should be considered include: the apprenticeship vocational training plan, the elimination of the percentage of stabilization, the payment of the hours of apprenticeship training for the acquisition of a qualification or a professional degree, the cross training offered by the Regions.

agreements also establish that the duration of the contract, for its educational component, it can not be more than three years, or five for the craft professionals identified by reference to collective bargaining.

3. The type of vocational training and trade, carried out under the responsibility of the company, is complemented by the provision of public training, internal or external to the company. It is aimed at the acquisition of basic and transversal skills, for a total not exceeding 120 hours for the duration of the three-year period covered by the regions, taking into account age, educational qualification and skills of the apprentice.

4. The regions and the associations of employers may establish arrangements for recognition of the status of master of artisan or craft.

5. For employers of seasonal cycles business, the collective labor agreements concluded at national level may provide specific procedures for carrying out the contract of apprenticeship, including temporary, pursuant to Legislative Decree 6 September 2001, n. 368, including the minimum length.

The article indicates the age at which the apprenticeship can be executed (17-29 years), the duration (3-5 years) and the relationship between schools and professional companies (paragraph 3). Starting from these premises, the creation of a system of assessment of learning outcomes is left to the individual regions that, in accordance with national laws and national labor contract (CCNL), have established their own system of rules.

Learning outcomes in Italy and in Regione Lombardia

It is essential to refer to a regional system to understand how the VET system is regulated in Italy.

The Central State has exclusive power to define general rules on education and the setting of minimum service levels (Article 117 of the Constitution). It also has to provide to the management of the state vocational training institutes, which have specific characteristics.

Each region has its own system of qualifications, including profiles, standards, way of assessment and recognition; the description of LO is not always present, nor coherent with the EQF / ECVET model. The regions have the authority to decide profiles and levels, issue certificates, accredit private and public entities (which provide training course according to specific standards and requirements). There are cases in which public authorities also manage directly training agencies.

This situation creates many differences between the various systems, and the consequence is a not homogeneous diffusion of learning outcomes. It is important to highlight the strong autonomy of

local authorities, even within the framework of shared rules, and the low consideration and value of professional qualifications.

Let consider the situation of Regione Lombardia, primarily because it has a rather developed legislative framework related to apprenticeship, with the creation of laws, rules, definition of professional profiles, regulated times and steps of apprenticeship execution, interrelationship between schools and businesses; it is also one of the largest Italian regions and the most important for industrial development and services to the people.

The professional apprenticeship is divided into two parts:

- Basic and transversal training (governed by the Region):
- Vocational training (training provided for the acquisition of technical and professional skills and expertise, governed by individual national collective bargaining agreement, applied by the Company).

The contents and methods for providing transversal training in apprenticeship contracts are governed by Dgr 2933 of 25/01/2012 of the Regione Lombardia, which finances it through a public training offer.

Companies may choose two ways for training:

- 1) Through the provision of training given to public bodies accredited for training;
- 2) Without use of public education, by providing such training directly in accordance with the content defined by the Dgr 2933 of 25/01/2012.

Training can be carried out at an accredited training or at the workplace.

In relation to the qualification obtained by the trainees, duration of training for the acquisition of basic skills and transversal is differentiated into:

- 120 hours in the three years for apprentices who have a license of lower secondary school degree (so-called middle school) or without qualification;
- 80 hours for apprentices in possession of a certificate of qualification or professional degree, or diploma of education;
- 40 hours for apprentices in possession of a degree or other tertiary qualifications.

The company (at its own expense) can provide an additional training devoted to the acquisition of basic skills and transversal, where functional for the contractual qualification outcomes.

The contents of the training for the acquisition of basic skills and cross sections are broken down based on "Basic Skills" and "Transversal skills" of the Regional Framework of Professional Standards (QRSP).

About QRSP

Regione Lombardia has created the Regional Framework of Professional Standards (QRSP) where there are a definition and classification of profiles and professional skills in the working reality of Lombardy, grouped into 30 main areas and sections.

Built according to rules consistent with the national and European models for the creation of professional standards, the QRSP is credited to the Lombard system of education, training and employment, and it is the common reference for the design of continuing training, lifelong learning and specialization as well as for the certification of skills acquired in formal learning (training), non-formal (work) and informal (life experiences).

The system of certification of competencies defined by Regione Lombardia allows each person to enhance their human capital and professional in terms of skills, knowledge and abilities. It also provides the possibility to use the skills acquired, even at national and European level.

Conforming to the European directives, the regional certification takes account of the skills acquired by people in all contexts (school, work and different experiences), in the perspective of overcoming the legal value of qualification.

For the second cycle and the tertiary education, the contents of the certification are defined by the special educational profiles of the regional repertory. For other areas of training and for cases of acquisition of skills outside of training (at work or life experience), the contents are defined by the professional profiles of the Regional Framework of Professional Standards.

Comparison between two professional profiles in Lombardy Region: Maintainer of industrial automation systems and Mechanical maintainer

In Lombardy Region, the apprenticeship for the qualification and professional degree is an employment contract with a training content; it enables young people (aged between 15 and 25) to gain a qualification as a professional dealer or a vocational diploma. These qualifications are nationally recognized and allow the completion of compulsory education and training.

Through the apprenticeship contract for the qualification and the professional degree, each apprentice has the possibility to:

- work and get a salary with the same protections all other employees;
- learn on the job, gaining technical and professional skills specifications.
- receive learning support by a tutor of the company, which has the function of promoting an efficient integration into the production environment and support a gradual acquisition of technical and professional skills. The characteristics and requirements of the tutor are defined by collective bargaining.
- achieving a qualification or a professional degree to build career prospects.

This kind of apprenticeship is called "Contratto formativo" (training contract) because the work experience alternate moments of training, which can take place both inside the company and externally at specialized training facilities (training institutions, schools, etc..), which allow young people to gain a qualification.

The period of training for the professional apprenticeship or job contract has a maximum duration of three years; for the artisan professions identified by collective bargaining, the duration of the training can be up to 5 years. The times shown are always designed as an upper limit. The provided minimum duration is of six months, except for the activities that take place in seasonal cycles identified by collective bargaining.

Let's consider two examples of apprenticeship in the automotive sector, with different level of complexity: Maintainer of industrial automation systems and Mechanical maintainer.

The two profiles show an accurate description of the skills and the competences that are required to perform the job, and also a precise definition of the industrial areas in which the job can be done.

The Maintainer of industrial automation systems ensures the smooth functioning of the internal technological resources to the workplace. He performs maintenance of components and systems for industrial automation acting on the mechanical, fluid and electrical equipment. His main tasks are the maintenance and technical assistance, the continuous monitoring of the plants and a constant search for efficiency.

The Mechanical maintainer performs mechanical maintenance, preventive or on call for failure, and perform support activities, in order to ensure the proper functioning of the machinery / equipment and allow normal operation of the production. So his work field is exclusively reserved to the mechanical aspects of machinery and he is not explicitly involved in the activity of improving the efficiency and development.

Both profiles are included in the National Classification of Occupations (NUP) and present a specific list of skills and competences requested: the Maintainer of industrial automation systems is attended to know elements of electronics, electrical engineering, mechanics, hydraulics and pneumatic, in addition to the statement of protecting health and safety of workers in all sectors of public and private activities; the Mechanical maintainer competences are about mechanical design, elements of industrial mechanical and mechanics in general, and of course the safety standards.

As already said, the formation takes place in conjunction with the job; there are no written or oral tests, neither practical, for the assessment of learning outcomes. At the end of the apprenticeship, the company may decide, based on the work carried out, whether or not to hire the apprentice.

Conclusion

The main problem of the Italian system is the lack of interregional regulation for the learning outcomes recognition and the strong diffusion, for historical and cultural reasons, of the apprenticeship in the transition between vocational school and occupability. Vocational education has long been a topic of discussion in the debate of economic policy. Many have stressed that Italy is losing ground in terms of competitiveness, and how this is due, among other things, to the lack of investment in human capital formation. According to the latest Eurostat survey on education made by the companies, the percentage of firms with at least ten employees who had carried out training activities in 2005 (about 70 thousand) were 32 per cent of the total, compared to 60 per cent of the EU average³. Our country was placed third to last place in the European rankings, ahead of Bulgaria and Greece. This collection, though dated, allows us to highlight the lack of attention to the training of Italian firms.

The apprenticeship has been used by companies as an opportunity for low-cost labor rather than as a real training opportunity.

Unfortunately, while it is on this ground that confront other partners, Italy has long been in trouble for both the quantity and for the quality of employment opportunities offered to young people. This creates considerable waste of human and material resources, which is exacerbated during the recent economic crisis.

³ Eurostat, Continuous Vocational Training Survey (2005), i dati attualmente disponibili sono riferiti all'anno 2005, mentre è in corso la rilevazione riferita al 2010.

In general terms, the crisis has highlighted the nodes on the bottom of the Italian labor market, in particular for the class of young people: the strong regional disparities, the segmentation between Italians and foreigners, and large number of people who give up looking for a job.

Trying to resolve that situation, the learning outcomes approach has been implemented in different areas of the Italian qualifications system, although differences, mainly terminological, still remain among different subsystems. The LOs approach will be extended in the near future with reference to the second phase of the referencing process of the national qualifications system to EQF and the implementation of the latest national regulations on VET.

A system based on modular qualifications (ECVET model) is partially adopted. Some subsystems can give citizens the opportunities to achieve partial qualifications after the assessment of prior learning or accumulating the units and related value in terms of credit, changing from one pathway to another. With the implementation of the latest national regulations on VET, the LOs approach and the transfer opportunities will be further developed.⁴

⁴ “Monitoring ECVET practices”, Cedefop, Luxembourg, Publication Office of the European Union, 2013.

Appendix

REGIONE LOMBARDIA

Full profile description of Maintainer of industrial automation systems

Area professionale: [Meccanica, produzione e manutenzione di macchine, impiantistica](#)

DESCRIZIONE PROFILO

Il Manutentore di sistemi di automazione industriale garantisce il buon funzionamento delle risorse tecnologiche interne al luogo di lavoro. Esegue la manutenzione di componenti ed impianti di automazione industriale intervenendo sulla parte meccanica, fluida ed elettrica delle apparecchiature. Svolge tre tipi di intervento: -una manutenzione di pronto intervento, al fine di risolvere malfunzionamenti di impianti di automazione industriale, ripristinandone il normale funzionamento (sostituzione di elementi o parti di una macchina, interventi di modificazione e ripristino di componenti....) -una costante attività di manutenzione preventiva attraverso la cura e l'assistenza tecnica degli impianti. -una attività continuativa di monitoraggio e controllo sul funzionamento dei macchinari, al fine di portare suggerimenti utili alla continua ricerca di efficienza (individuazione delle cause che hanno provocato un guasto o anomalia, ricerca delle soluzioni migliori per eliminare cause ed eventuale ripetitività di guasti; ecc.)

ELEMENTI DI CONTESTO

Ambito/i di riferimento Opera in imprese di varia dimensione e appartenenti a settori diversi, che si avvalgono di sistemi automatizzati Collocazione/i organizzativa/e: Opera a stretto contatto con la produzione.

REFERENZIAZIONI

Attività Economiche ATECO

28 -

FABBRICAZIONE DI MACCHINARI ED APPARECCHIATURE NCA

Classificazione Internazionale delle Professioni ISCO-88

7421 -

Riparatori e manutentori di apparati elettronici industriali

Classificazione Nazionale delle Professioni NUP

6.2.4.2 -

Manutentori e riparatori di apparati elettronici industriali e di misura

COMPETENZE

effettuare il ripristino del funzionamento di impianti di automazione in caso di guasti e malfunzionamenti

Livello EQF : 3

Conoscenze

- Elementi di elettronica
- Elementi di elettrotecnica
- Elementi di meccanica
- Elementi di oleodinamica
- Elementi di pneumatica
- Normativa sulla tutela della salute e sicurezza dei lavoratori in tutti i settori di attività privati o pubblici
- Sistemi di automazione industriale

Abilità

- Applicare procedure di redazione relazioni tecniche su interventi effettuati
- Applicare procedure di sicurezza in produzione
- Applicare procedure di sostituzione di componenti in sistemi di automazione industriale
- Applicare procedure di taratura strumenti di misurazione elettronica
- Applicare tecniche di controllo funzionale di sistemi di automazione industriale
- Applicare tecniche di diagnosi guasti su sistemi di automazione industriale
- Applicare tecniche di riparazione di componenti in sistemi di automazione industriale
- Applicare tecniche di ripristino funzionalità sistemi automatizzati
- Applicare tecniche di ripristino operativo componenti di sistemi di automazione industriale
- Utilizzare dispositivi di protezione individuali (DPI)
- Utilizzare strumenti di misurazione elettronica

Indicatori di competenza :

- componenti elettrici di impianti elettrici di automazione industriale in media e alta tensione, sostituiti nel rispetto della normativa tecnica e di sicurezza vigente, utilizzando gli idonei dpi
- diagnosi di funzionamento di impianti elettrici di automazione industriale in media e alta tensione effettuata con l'utilizzo di strumenti specifici, per la definizione della tipologia del guasto/malfunzionamento
- impianti elettrici di automazione industriale in media e alta tensione funzionanti e ripristinati nel rispetto della normativa tecnica e di sicurezza vigente, utilizzando gli idonei dpi
- report di manutenzione e ripristino degli impianti redatto secondo le procedure

COMPETENZE

provvedere alla manutenzione preventiva di sistemi di automazione industriale

Conoscenze

- Elementi di elettronica
- Elementi di elettrotecnica
- Elementi di meccanica
- Elementi di oleodinamica
- Elementi di pneumatica
- Normativa sulla tutela della salute e sicurezza dei lavoratori in tutti i settori di attività privati o pubblici
- Sistemi di automazione industriale

Abilità

- Applicare procedure di manutenzione preventiva su sistemi di automazione industriale
- Applicare procedure di pianificazione operativa
- Applicare procedure di sicurezza in produzione
- Applicare procedure di sostituzione di componenti in sistemi di automazione industriale
- Applicare procedure di taratura strumenti di misurazione elettronica
- Applicare tecniche di testing su sistemi di automazione industriale
- Applicare tecniche diagnostiche per rilevazione guasti su sistemi di automazione industriale
- Utilizzare dispositivi di protezione individuali (DPI)
- Utilizzare strumenti di misurazione parametri elettronici

Decreto: DDUO n. 8486 del 30/07/2008 - ADOZIONE DEL QUADRO REGIONALE DEGLI STANDARD PROFESSIONALI DELLA REGIONE LOMBARDIA

Data: 30-07-2008

Full profile description of Mechanical maintainer

Manutentore meccanico

Area professionale: [Meccanica, produzione e manutenzione di macchine, impiantistica](#)

Ultima versione aggiornata al 30-07-2008

Versioni

Se vengono visualizzate diverse versioni del Profilo Professionale questo è dovuto a variazioni intervenute sul Profilo; vengono quindi visualizzate tutte le eventuali versioni a ritroso nel tempo, iniziando dalla più recente e quindi valida al momento della ricerca.

30-07-2008

DESCRIZIONE PROFILO

Il Manutentore meccanico esegue operazioni di manutenzione meccanica, a carattere preventivo o su chiamata per guasto, ed effettuare attività di assistenza, al fine di assicurare il corretto funzionamento dei macchinari/impianti e consentire il normale svolgimento delle attività di produzione.

ELEMENTI DI CONTESTO

Ambito/i di riferimento Opera nell'ambito della produzione, in imprese di varia dimensione e appartenenti a settori diversi, che si avvalgono di tecnologia meccanica. Collocazione/i organizzativa/e Fa riferimento, normalmente, al Responsabile di reparto (nelle imprese di piccole dimensioni) o al Capo squadra della manutenzione. Verso l'esterno, può interagire con le ditte fornitrici di ricambi. Modalità di esercizio del lavoro: L'attività si svolge all'interno dell'azienda, ed è trasversale all'intera area di produzione.

REFERENZIAZIONI

Attività Economiche ATECO

28 -

FABBRICAZIONE DI MACCHINARI ED APPARECCHIATURE NCA

Classificazione Internazionale delle Professioni ISCO-88

7233 -

Meccanici e riparatori di macchinari agricoli e industriali

Classificazione Nazionale delle Professioni NUP

6.2.3.3 -

Meccanici e montatori di macchinari industriali ed assimilati

COMPETENZE

effettuare il ripristino del funzionamento di macchinari/impianti in caso di guasti di componenti meccanici

Conoscenze

- Disegno meccanico
- Elementi di impianti industriali meccanici
- Meccanica
- Normativa sulla tutela della salute e sicurezza dei lavoratori in tutti i settori di attività privati o pubblici

Abilità

- Applicare procedure di redazione relazioni tecniche su interventi effettuati
- Applicare procedure di sicurezza in produzione
- Applicare procedure di sostituzione componenti meccanici di macchinari/impianti
- Applicare procedure di taratura strumenti di misurazione meccanica
- Applicare tecniche di controllo funzionale dei componenti meccanici di macchinari/impianti
- Applicare tecniche di diagnosi guasti componenti meccaniche di macchinari/impianti
- Applicare tecniche di riparazione componenti meccanici di macchinari/impianti
- Applicare tecniche di ripristino operativo componenti meccanici di macchinari
- Utilizzare apparecchi di metrologia meccanica
- Utilizzare dispositivi di protezione individuali (DPI)
- Utilizzare strumenti per lavorazioni meccaniche

COMPETENZE

provvedere alla manutenzione programmata di componenti meccaniche di macchinari/impianti

Conoscenze

- Disegno meccanico
- Elementi di impianti industriali meccanici
- Meccanica
- Normativa sulla tutela della salute e sicurezza dei lavoratori in tutti i settori di attività privati o pubblici

Abilità

- Applicare procedure di manutenzione preventiva su componenti meccanici di macchinari/impianti
- Applicare procedure di pianificazione operativa
- Applicare procedure di sicurezza in produzione
- Applicare procedure di sostituzione componenti meccanici di macchinari/impianti
- Applicare procedure di taratura strumenti di misurazione meccanica
- Applicare procedure per l'analisi termografica e/o vibrazionale dei componenti meccanici di macchinari/impianti
- Applicare tecniche di testing meccanico su componenti di macchinari/impianti
- Applicare tecniche diagnostiche per rilevazione guasti su componenti meccanici di macchinari/impianti
- Utilizzare apparecchi di metrologia meccanica
- Utilizzare dispositivi di protezione individuali (DPI)
- Utilizzare strumenti di misurazione parametri meccanici
- Utilizzare strumenti per la manutenzione meccanica