



Association Wiap International

Education for every one
Ausbildung für alle



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Description for the profession Polypratiker

The profession includes some items from the earlier teaching programs from the machinist, mechanic and electrician. However, more adapted to the today's modern technologies.

The goal of our organization: to train teachers who will educate the profession Polypratiker.

Following the module description Project Vietnam. Our modules have been set with a 10-er distance. The free places are for more intermediate modules in other advanced vocational courses. Therefore, these 10-er remain distances.

The whole project was prepared for 4 languages. So the the education program in different countries with the same system executable.

The module assembly is mixed-conscious as the occupation of Polypratikers.

Modul 10 Safety at work

Safety in 2013, has a much bigger role than 30 years ago. The module is adapted to today's standards. Wear eye why? Where? Wear safety shoes why?

Described in the training materials Wi_8_f_

Modul 20 Files, saws, chisels, deburring, drilling and scribing

Very important for the daily life of a Polypratiker: all handicrafts from the module 20

Described in the training materials Wi_8_f_

Modul 30 Measure, Metric, Inch, vernier, micrometer, level

The use of measuring instruments, temperature effects, cleanliness and discipline with the measuring means. Very important to be well acquainted with it. A vernier read to 0.02 mm accuracy. Why a micrometer has a plastic or wooden grip? What temperature should have a good measuring room? What means if the water level is an accuracy of 0.05 mm? And more.

Described in the training materials Wi_8_f_

Modul 40 Conventional milling, CNC milling

Milling is a professional component of Polypratiker. For cubic milling machining is the Machining mode. Today, there are alternatives, such as: water jet cutting, laser cutting eroding.

This topic is discussed in the module also.

Described in the training materials Wi_8_f_

Modul 50 Conventional turning, CNC turning

Teaching activities has its own machine tools. Turning is a very important component. The handling of a lathe to know properly, including all functions needed a good basic knowledge.
Described in the training materials Wi_8_f_

Modul 60 Flat and cylindrical grinding

Teaching activities needs spindles and many ground workpieces. Including tolerances are required. It's machine tool manufacturing. It is necessary for an apprentice knows the round and flat grinding. It is to be learned, what with g6 tolerance and what is to be processed with a H6 tolerance and why.
Described in the training materials Wi_8_f_

Modul 70 Bending and shearing

A machine tool manufacturing without sheets do not exist. All new machines, as well as in maintenance, need today more and more metal covers. This is also due to the increased security. Therefore, in our profession, a high value is placed on the handling of sheet metal working machines for sheet metal working.
Described in the training materials Wi_8_f_

Modul 80 Welding, electric welding, MIG / MAG, oxyacetylene, brazing

The new machine based in Europe, in recent years, often on welded structures. A welding machine bed requires a good knowledge. It must be observed distortion problems. It is to use the right kinds of steel and welding means. There are many different kinds of bevels. Our apprentices are made so intimately familiar.
Described in the training materials Wi_8_f_

Module 90 Metal relax with vibration

Until a few years ago there were many foundries in Europe and therefore in annealing. Due to the large flexibility that can be lived better by welded structures, in recent years, many foundries have closed. Thus the furnaces have been greatly reduced. The alternative, vibrate instead annealing is an environmentally conscious and cost reducing alternative. Does the machine in the school system has many advantages. Therefore belongs the teaching program.
Described in the formation of sheets Wi_8_f_

Modul 100 Surface engineering, paint, spray, corrosion protection

Spraying and painting is one of the oldest and still most often used method of corrosion protection in machinery and equipment maintenance. Because in our teaching much treated against rust this department is an important part of the school vocational training programs. The most important and most complex work is always preparing.
Described in the training materials Wi_8_f_

Modul 110 Hardening, material science

There are hardening. There is tool steel. There is steel which has a hardening temperature of 800 degrees, 950 degrees have a different steel Our apprentices need to know what is what and how something is done. Our training program is being tested in practice. Primarily for machine maintenance. It is hardened, annealed, tempered, carburized.
Described in the training materials Wi_8_f_

Modul 120 Design, hand drawings and computer drawings, CAD

Hand drawing of 3 sides. CAD drawing with a simple standard program is the basic concept of our teaching program. Who can the can, everything later.
Described in the training materials Wi_8_f_

Modul 130 Special constructions own developments

There is no way around the fact that each machine tool maintenance or engineering requires flexible thinking. It requires personal initiative staff. How can this be learned? Only when the boys themselves must do something (shall). They should think for themselves, to create something himself. These require the trainees a basic idea. The rest of it himself. Good, accurate work. Something the apprentice can be proud of themselves. Therefore, this module also has a high percentage rating.

Described in the training materials Wi_8_f_

Modul 140 Use of hand machines, scraping, drilling, Magnetic drill, angle grinder, jig saw,

Handling of hand machines can not be learned in the classroom. A few basic concepts like the plug is pulled out when the machine is manipulated, is a given. But it should be in everyday use also handled .

The shaving machine has a short stroke and long stroke , or even a speed control. For what is what? The scraping angle like? The handling of a magnetic drilling machine, which should be secured while in the horizontal. And much more. You learn this in practice not at school. This module contains the practical, as well as the theoretical piece of information.

Described in the training materials Wi_8_f_

Modul 150 Application Tuptara, Helicoil, Loc Tite, sealants, silicone, tools

Many technical books do not use a brand name, because it is handled countries related. Let's call sheet Tubtara as threaded inserts or helicoil as threaded inserts even educate. Actually, everything that makes life easier for the machine: show, try and handle. What adhesive is for what? Thread lock firmly, releasable, and as a rule preparation is completed.

Described in the training materials Wi_8_f_

Modul 160 Tools, grinders, drills, screwdrivers, repair, produce

Repair tools require manual skills, as well as some information. Like a screwdriver is ground. Or that a drill can be sanded with 5 degree angle to make a move without need. Just knowing you have it. All this teaches this module.

Described in the training materials Wi_8_f_

Modul 170 Loads, mechanical transport, crane forklift driving, focus

In mechanical engineering, lifting loads is an important component. How heavy is the item that needs to be raised? Oversized cords are better than undersized! It must be rooted in the minds of the apprentices. That is,. Safety, thinking ahead, no accidents Lift and transport loads can be very dangerous. If ring screws are used, the load should be observed angle. Heaviness is an issue that should never be neglected. Our apprentices are trained with the module. If a hanging load falls, by the stroke of a higher burden of transport damage. So know how to lift loads very important.

Described in the training materials Wi_8_f_

Modul 180 Electrical installation, Cabinets, wiring, cabling machines

Electrical cabinets installed. The material classified. Know that usually 300 mm from the ground no components to install, event of risk of and so on The electrical cabinet cooling, no outside air to cool take, why? Because the dirt / dust, along with the humidity, much can destroy in an electric cabinet. The components must be depending on the manufacturer, have a distance to the wall. So never throw away the instructions of the manufacturer, but first study. Which cable cross-sections should be when, where used? For what are the cable chain cable compatible? Why can not cheap cables used? In the machinery industry is often still working with oil. The cable will be hard and brittle. This should always be observed. And much more is called in the module.

Described in the training materials Wi_8_f_

Modul 190 Commissioning, electrical measure Scheme read

Machines that are often transported far. Terminals, cable connection points in electrical panels that may change due to the vibration. Therefore, there are several points that need to learn an apprentice so that he can open and attentive eyes to the professional world. Read schemeno matter what manufacturer, is not easy. There are various types, different standards, different countries. A large part is described in the module.

Described in the training materials Wi_8_f_

Modul 200 PLC programming, CNC controls, commissioning

In maintenance and as a machine builder apprentice recognize very quickly that a lot of different manufacturers of PLC control, CNCs , partly for decades on the market. This module will feature a wide overview. To show why some PLC devices have a standard RS 232 and what is it anyway. Where it was used? Where it is still used? What does the future hold? In many machines CNC and PLC controls are integrated into one unit. Even just the CNC technology is something special. How axes are set? How to speed is adjusted? What is a KV factor? And much more. This module gives the trainee the opportunity to do work that many companies simply can not be done in-house. Whenever a control manufacturer had come, which will become our apprentice already have the basic knowledge.

Described in the training materials Wi_8_f_

Modul 210 Read pneumatic diagram and handling

In mechanical engineering, a little goes almost without pneumatics or hydraulics. Therefore, these two modules are learning for our apprentices very conscientious. Making a lot of test, so it is understandable why a cylinder can be moved in the rest position, or can not be moved? What can be used for thread in the hydraulics? Many such information is described in the module, the most out of practice.

Described in the training materials Wi_8_f_

Modul 220 Read hydraulic scheme and handling

Here is the same text as in the module 210th What is a tank return for a valve? How will supply called? The many characters are toned from data sheets.

Described in the training materials Wi_8_f_

Modul 230 Standard Parts, Taper look, belts, seals and more

The whole machine tool manufacturing has changed a lot over 30 years ago. Many have opted for standard goods. Earlier it was often by a mechanical engineer, a thread M7x 1 is selected. Only that no other screws was able to buy. Yet today Taper Look, toothed belt types standard goods. What makes the mechanical engineering easier. The costs also easier. Many such information is described in the module, the most out of practice.

Described in the training materials Wi_8_f_

Modul 240 Assembly mechanism, spindle, bearings, pinned,

Swap in machine tool spindle bearings, is not so simple. A majority of the spindles to be removed to the front. A good mechanic can without the hammer. So often thinking before acting is the way to go. Depending on whether there are contained gears, or a belt drive, any kind requires a knowledge. There spindles with press fit. It should always be taken to ensure that documentation is available so that a bearing assembly can be assessed before manipulation. Conical pinning is an engineering method that is necessary if machines are to be built, which in 0.01 mm work area. Prior rubbing with the machine reamer, then rub with the hand reamer. The reamer never backward. The pins at risk collision points is not to be, that always attract. Only use for alignment. Many such references are included in the module.

Described in the training materials Wi_8_f_

Modul 250 Machine Tool Maintenance

How important is the maintenance today, shows especially the aviation industry. A maintenance plan, where everything is done preventively, is much better than if nothing is done until something is broken. We have the yellow box system in which an annual service plan is included. The maintenance people have to enter every application on a machine and to sign it. . And early inspection often prevents damage that can cost a lot of money. Our system has monthly visual inspection. Every year an inspection and a geometry control. It is well trained. Complete papers records and sign and date. Preventive maintenance should be defects at an early stage. Then there is no more downtime, which endangers the production. The life of a machine is tripled.
Described in the training materials Wi_8_f_

Modul 260 Old documentation read, study, procure spare parts

Any good mechanic or electrician will usually work! Papers not studying. Our apprentices are trained from the beginning, but so intense that they are also able to look at some old documents can also be found. Part numbers are found, thus the contact with machine manufacturers, if it becomes necessary, can be selected. This module provides a valuable guide.
Described in the training materials Wi_8_f_

Modul 270 Inventory management, organizing, classifying, documenting

A stock management is important for the maintenance, as well as for production. It should not when a screw is needed, each time be driven 50 km. This module contains a lot of important information and standards. A regular hexagon screw DIN called 912, an Allen Countersink screw called DIN 933 There is also a screw quality 8.8 or 12.9. What is used for what? Many other examples of templates are included in this module.
Described in the training materials Wi_8_f_

Modul 280 Job preparation, work schedules, acquisition, documentation

Computer application, search in, the Internet, Excel, Word
This module completes the skills of an apprentice however, that he is never helpless in a company. The professional man. have by his training, also learned activities that many others never even know
Described in the training materials Wi_8_f_

Modul 290 Filing system

Over the last 30 years the computer has replaced all paper folders mostly. What used to many folders was stored, is now in the computer. You can buy for all programs. But it changed in 30 years, so much so that often a program producer suddenly no longer exists. Then, if there is no overview, where a program has since filed its manufacturer data, it can happen often that a lot needs to be re-started again. And these are often very long hours usually never is anything found. So the old days with books and files were safer than computer world today. Precisely for this reason, the module is important for the apprentice. Therefore we have for decades, a filing system, which we include show in this module. We call well as various possibilities.
Described in the training materials Wi_8_f_

Modul 300 General education knowledge base

Our profession is a highly versatile professional. It takes a lot in the basic knowledge of the profession.
Described in the training materials Wi_8_f_

Modul 400 Final examinations, repetition, tutoring

During the entire training period, the trainee is tested with exams. He gets documents, everything is recorded, the points come from the work during the training period.
Described in the training materials Wi_8_f_

Verein Wiap International

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