

# Glossary

**2-D** [ADJ-U13] If an image is **2-D**, or two-dimensional, it is displayed on a flat surface, like a piece of paper or a computer screen. **dwuwymiarowy, 2-D**

**3-D** [ADJ-U13] If an image is **3-D**, or three-dimensional, it has or appears to have height, width, and depth. **trójwymiarowy, 3-D**

**acceptability** [N-UNCOUNT-U5] **Acceptability** is a determination about whether a product meets the standards for distribution or sale. **akceptacja, dopuszczalność, dopuszczenie produktu do sprzedaży**

**acceptance testing** [N-UNCOUNT-U6] **Acceptance testing** is the act of testing incoming materials to determine whether they are suitable for use in the manufacturing process. **przeprowadzanie testu akceptacyjnego**

**accounting** [N-UNCOUNT-U15] **Accounting** is a department that maintains a company's financial records. **księgowość, rachunkowość**

**activity-based system** [N-COUNT-U9] An **activity-based system** is a type of PMTS that includes models for the sequences of actions required to move something from one location to another. **system oparty na działaniu (system, którego częścią są modele opisujące przenoszenie różnych obiektów z jednego miejsca na inne, będący odmianą tzw. Predetermined Motion Time System)**

**actuator** [N-COUNT-U12] An **actuator** is a device that supplies power to a robotic manipulator. **urządzenie uruchamiające, silownik**

**advancement** [N-UNCOUNT-U14] **Advancement** is the process of moving to a higher level of responsibility or authority within a company. **awans zawodowy**

**alert** [V-T-U3] To **alert** someone is to provide him or her with important information about an urgent situation. **oszczędzać kogoś przed czymś, zaalarmować kogoś**

**allocate** [V-T-U10] To **allocate** something is to split its parts in a particular way and designate them for particular people or purposes. **przydzielać, przyznawać, asygnować**

**amputate** [V-T-U3] To **amputate** a limb is to completely remove it from a person's body. **amputować (np. rękę lub nogę)**

**analyst** [N-COUNT-U15] An **analyst** is someone who assesses the processes in a work environment and identifies ways to improve them. **analityk**

**apron** [N-COUNT-U1] An **apron** is a protective garment that covers the front of a person's body and is worn over the clothes. **fartuch**

**assembler** [N-COUNT-U15] An **assembler** is a worker who attaches parts in order to build a product. **monter na linii produkcyjnej**

**bench inspection** [N-COUNT-U6] A **bench inspection** is the act of examining products when they reach a certain point along the production line, and is generally conducted at a designated inspection station. **prüfung stanowiskowa (kontrola produktu na danym etapie produkcji)**

**blind** [V-T-U3] To **blind** someone is to prevent him or her from seeing, usually by damaging his/her eyes. **osłonić kogoś**

**burn** [N-COUNT-U3] A **burn** is an injury, usually resulting in a discoloration of the skin, that is caused by direct contact with fire, heat, acid, or oil. **oparzenie**

**business attire** [N-UNCOUNT-U1] **Business attire** is a type of clothing that is typical in offices, and often refers to suits and ties for men, and blouses and skirts or trousers for women. **klasyczny styl biznesowy (ubioru)**

**buyer** [N-COUNT-U15] A **buyer**, also known as a purchasing manager, is someone who finds and purchases raw materials for a factory. **tu: zaopatrzeniowiec (osoba odpowiedzialna za zakupy dla firmy)**

**CAD** [ABBREV-U13] **CAD** (computer-aided design) is the process of using a computer to design the features and functions of something. **projektowanie wspomagane komputerowo**

**capacity** [N-COUNT-U7] A **capacity** is the maximum amount of work that a factory can complete at a time, based on the available space, equipment, and staff. **tu: zdolność produkcyjna**

**CAPP** [ABBREV-U13] **CAPP** (computer-aided process planning) is the act of using software to create a detailed, organized set of instructions for creating a particular product. **systemy komputerowego wspomagania projektowania procesów technologicznych**

**certification** [N-UNCOUNT-U14] **Certification** is the process of becoming officially qualified or allowed to do something. **tu: potwierdzenie kwalifikacji zawodowych**

**chemical** [N-COUNT-U2] A **chemical** is a substance with particular properties or behaviors, and may be dangerous under certain conditions. **substancja chemiczna**

**CIM** [ABBREV-U13] **CIM** (computer-integrated manufacturing) is the process of using computers throughout the different stages of manufacturing, including product design, work planning, implementation, and distribution.  
**komputerowo zintegrowane wytwarzanie (systemy wsparcia logistyki i technologii produkcji)**

**cleanup** [N-UNCOUNT-U2] **Cleanup** is the process of removing dirt and waste from something. **gruntowne sprzątanie, gruntowne porządki**

**clerical** [ADJ-U15] If something is **clerical**, it involves general office duties such as maintaining records, sending communications, and managing schedules. **biurowy**

**CNC operator** [N-COUNT-U15] A **CNC** (computer numerical control) **operator** is a machine operator who runs his/her equipment from a computer. **operator obrabiarek CNC (sterowanych numerycznie)**

**comfortable** [ADJ-U1] If someone is **comfortable**, he/she feels physically good. **nieskrępowany**

**conformance** [N-UNCOUNT-U5] **Conformance** is a measurement of how closely the qualities of something match its specifications. **zgodność (z normami)**

**continuous flow manufacturing** [N-UNCOUNT-U7] **Continuous flow manufacturing** is a type of factory organization in which multiple products are constantly being produced from a single raw material. **proces produkcji w trybie ciągłym**

**continuous** [ADJ-U8] If something is **continuous**, it occurs constantly, without stopping. **ciągły**

**cost-effective** [ADJ-U11] If something is **cost-effective**, it has a desirable result without costing an excessive amount of money. **wydajny, opłacalny**

**coveralls** [N-COUNT-U1] **Coveralls** are a protective garment that a worker wears over his/her whole body, often with regular clothes underneath. **kombinezon roboczy, ubranie robocze**

**cross-train** [V-T-U8] To **cross-train** a worker is to teach him or her the skills for multiple jobs. **szkolić wielokierunkowo, multidyscyplinarnie**

**crush** [VT-U3] To **crush** something is to press or squeeze it until it breaks. **miażdżyć, zgniać**

**deployment** [N-UNCOUNT-U7] **Deployment** is the process of distributing something in a planned, organized way. **rozmieszczenie, rozlokowanie**

**design** [V-T-U11] To **design** something is to plan how it will be built and how it will function. **projektować**

**designated** [ADJ-U2] If something is **designated** for a particular purpose, it is intended to be used only for that purpose and not for any other purpose. **określony, wyznaczony**

**dexterity** [N-UNCOUNT-U12] **Dexterity** is the ability to move and control something with hands or hand-like components. **sprawność, zręczność (manualna)**

**do** [EXPRESSION-U8] “**Do**” refers to the time required to complete actual work. **tu: czas potrzebny do wykonania danej pracy**

**document** [V-T-U4] To **document** something is to record details about something in an official manner. **dokumentować, prowadzić dokumentację**

**drafting** [N-UNCOUNT-U11] **Drafting** is a technical skill that involves making very detailed, precise drawings of machines and systems. **kreślarstwo, projektowanie techniczne**

**dress code** [N-COUNT-U1] A **dress code** is a list of rules or guidelines regarding the clothing that people must wear when in a particular place. **zasady ubioru (np. obowiązujące w firmie)**

**efficiency** [N-UNCOUNT-U8] **Efficiency** it is the state of accomplishing something with the least possible time, effort, and waste. **wydajność, produktywność**

**element-based system** [N-COUNT-U9] An **element-based system** is a version of a motion-based system for certain applications, and includes time predictions for specific sets of tasks. **wersja systemu ruchu liniowego, uwzględniająca przewidywany czas potrzebny do wykonania ciągu kolejnych zadań**

**eliminate** [V-T-U5] To **eliminate** something is to completely stop or remove it. **eliminować, likwidować**

**emergency procedure** [N-COUNT-U3] An **emergency procedure** is a set of actions that people must follow during emergencies. **procedura awaryjna**

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**emergency shutdown** [N-COUNT-U3] An **emergency shutdown** is a procedure in which all the functions of a factory are stopped suddenly because of an emergency situation. **wyłączenie awaryjne**

**enabling device** [N-COUNT-U12] An **enabling device** is a mechanism that allows motion when it is engaged and immediately stops motion when disengaged. **urządzenie uaktywniające**

**end-effector** [N-COUNT-U12] An **end-effector** is a gripping tool or other device at the end of a manipulator. **chwytak**

**enforce** [V-T-U1] To **enforce** a rule or law is to make sure that people follow it. **wprowadzać w życie, egzekwować**

**engineered standard** [N-COUNT-U9] An **engineered standard** is a method for determining something that is based on precise, measurable factors. **standard, którego podstawą są precyzyjne i mierzalne dane**

**entry-level** [ADJ-U14] If a job is **entry-level**, it may require some skills or education, but is suitable for someone who is new to the industry. **przeznaczony dla początkujących (np. o stanowisku pracy dedykowanym osobom rozpoczynającym karierę zawodową)**

**equipment procedures** [N-COUNT-U14] **Equipment procedures** are instructions for operating and maintaining the machines in a facility. **procedury dotyczące obsługi maszyn na linii produkcyjnej**

**estimate** [N-COUNT-U9] An **estimate** is a general prediction about something based on historical data or other information. **ocena szacunkowa**

**experienced** [ADJ-U14] If someone is **experienced**, he/she has done something for a long time and is confident doing it. **doświadczony**

**exploded view** [N-COUNT-U13] An **exploded view** is a diagram that shows the parts of something slightly separated from each other so that each component is displayed clearly. **widok rozstrzelony (pokazujący wzajemne położenie części)**

**fabricator** [N-COUNT-U15] A **fabricator** is a person or company that builds parts for use in other areas of manufacturing or construction. **wytwórca, producent (np. podzespołów)**

**final acceptance inspection** [N-COUNT-U6] A **final acceptance inspection** is the act of examining and testing the complete assembly of a product. **końcowa kontrola (gotowego produktu)**

**first aid** [N-UNCOUNT-U3] **First aid** is medical treatment that is applied immediately after an accident or injury. **pierwsza pomoc medyczna**

**first article inspection** [N-COUNT-U6] A **first article inspection** is the act of examining the first unit or batch in a manufacturing process, conducted in order to identify and fix problems before manufacturing further units. **kontrola pierwszego egzemplarza (danego produktu)**

**fit** [V-I-U1] To **fit** is to be an appropriate size or shape for someone's body, and generally refers to clothing or accessories. **pasować, być dobrego rozmiaru (np. o ubraniu)**

**flow line** [N-COUNT-U12] A **flow line** is a sequence of machines that are arranged to perform a series of operations in a particular order. **sposób ustawienia maszyn, które wykonują następujące po sobie operacje, aby proces produkcyjny odbywał się płynnie i efektywnie**

**foreperson** [N-COUNT-U15] A **foreperson** is someone who oversees a team of workers. **majster, mistrz, brygadzista**

**get caught in** [PHRASE-U3] To **get caught in** something is to become entangled or trapped in it. **zostać złapany, wciągnięty (np. przez maszynę)**

**glove** [N-COUNT-U1] A **glove** is a piece of protective equipment that is worn to protect the hands. **rękawica**

**goal** [N-COUNT-U7] A **goal** is something that someone is trying to achieve or reach. **cel**

**goggles** [N-UNCOUNT-U1] **Goggles** are a clear, protective covering for a person's eyes. **okulary ochronne**

**guarding** [N-UNCOUNT-U3] **Guarding** is something that acts as a barrier between people and the moving parts of machines to prevent injury or damage. **bariera ochronna**

**guess** [N-COUNT-U9] A **guess** is a prediction about something that is based on little or no definite data. **przypuszczenie, domysł**

**hairnet** [N-COUNT-U1] A **hairnet** is a covering for a person's head that is designed to contain loose hairs. **siatka na włosy**

**handle** [V-T-U2] To **handle** something is to control it or have contact with it. **zajmować się (czymś), radzić sobie z (czymś)**

**hazardous** [ADJ-U2] If something is **hazardous**, it is able or likely to harm someone. **niebezpieczny, ryzykowny**  
**historical data** [N-COUNT-U9] **Historical data** are facts about something from a previous time. **dane historyczne, dane archiwalne**

**hood** [N-COUNT-U1] A **hood** is a protective covering that is worn over the head, and may have a clear panel over the face that the wearer can see through. **kaptur ochronny**

**HR** [N-UNCOUNT-U15] **HR** (human resources) is a department within a company that is responsible for hiring new employees, as well as managing payroll and ongoing concerns of current employees. **wydział w firmie zajmujący się sprawami pracowniczymi, dział kadr, dział personalny**

**HVAC** [ABBREV-U11] **HVAC** (heating, ventilation, and air conditioning) is an area of technology that deals with the control of indoor temperatures and airflow. **system ogrzewania, wentylacji i klimatyzacji**

**hydraulic** [ADJ-U12] If something is **hydraulic**, it creates power with the movement of a fluid, such as water. **hydraliczny**

**incoming inspection** [N-COUNT-U6] An **incoming inspection** is the act of examining any raw materials or subassemblies when they arrive at a factory. **kontrola surowców przychodzących**

**infrastructural** [ADJ-U10] If a decision is **infrastructural**, it relates to resources other than physical equipment, including personnel, policies, and processes. **infrastrukturalny, dotyczący infrastruktury**

**interface** [N-COUNT-U13] An **interface** is a system that allows a user to interact with a computer or other device, and includes the arrangement of keys or screen features that a user must navigate and select. **interfejs**

**JIT** [ABBREV-U8] **JIT** (just-in-time), also called lean manufacturing, is a philosophy of efficient manufacturing in which manufacturers have only an essential amount of inventory at a particular time, strive to improve quality to zero defects, and try to reduce unnecessary delays throughout the manufacturing process. **dokładnie na czas, w samą porę (filozofia procesu produkcji polegająca na minimalizacji wszelkich zapasów)**

**job shop** [N-COUNT-U7] A **job shop** is a type of factory organization in which products are manufactured in small batches, or by one unit at a time. **mała fabryka produkująca towary na zamówienie**

**joint** [N-COUNT-U12] A **joint** is a place where two things are connected in a way that allows them to turn or twist in different directions. **styk, złącze**

**label** [N-COUNT-U2] A **label** is a piece of printed information that is attached to something. **etykieta, metka**

**lag strategy** [N-COUNT-U10] A **lag strategy** is a type of production strategy in which a company waits until an increased demand exists before acquiring the resources to accommodate it. **strategia celowego opóźniania produkcji, aż do momentu kiedy zbierze się odpowiednia liczba zamówień**

**latent defect** [N-COUNT-U5] A **latent defect** is a problem with a product that is not apparent during quality control, but rather occurs later during use by the consumer. **wada ukryta**

**lead strategy** [N-COUNT-U10] A **lead strategy** is a type of production strategy in which a company anticipates an increased demand, and acquires resources before they are needed. **strategia wyprzedzająca (polega na dostosowaniu wysokości produkcji do przewidywanego wzrostu zapotrzebowania)**

**lead time** [N-COUNT-U8] **Lead time** is the amount of time between the initial intent to complete a task and the actual completion of the task. **okres projektowania i wdrażania**

**lean manufacturing** [N-UNCOUNT-U8] **Lean manufacturing**, also called JIT, is a philosophy of efficient manufacturing in which manufacturers have only an essential amount of inventory at a particular time, strive to improve quality to zero defects, and try to reduce unnecessary delays throughout the manufacturing process. **szczupła produkcja (metoda zarządzania produkcją polegająca na ograniczeniu lub wyeliminowaniu strat)**

**line worker** [N-COUNT-U15] A **line worker** is someone who performs one particular task along an assembly line. **pracownik linii montażowej**

**loose** [ADJ-U1] If clothing is **loose**, it is large and does not fit tightly around the body. **luźny (o ubraniu)**

**lubricate** [V-T-U4] To **lubricate** something is to apply a liquid to it, usually to prevent moving parts from scraping each other roughly. **smarować (np. części maszyny)**

**machine operator** [N-COUNT-U15] A **machine operator** is someone who uses a machine to perform his/her task along a production line. **operator maszyny**

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**maintain** [V-T-U4] To **maintain** something is to inspect, clean, and repair it regularly to ensure it remains in good condition. **utrzymywać w dobrym stanie, konserwować**

**major activity planning** [N-UNCOUNT-U7] **Major activity planning** is the process of ensuring that many different processes work smoothly together as one. **planowanie głównych działań**

**make-ready** [EXPRESSION-U8] “**Make-ready**” refers to the setup or preparation time needed before a task can be completed. **przygotowanie do wykonania danego zadania**

**manifest** [V-I-U5] To **manifest** is to become real or apparent. **manifestować, okazywać, ujawniać**

**manipulator** [N-COUNT-U12] A **manipulator** is a part of a robot that acts as an arm and controls the movement of something. **manipulator (część robota działająca jak ramię)**

**manufacturing engineer** [N-COUNT-U11] A **manufacturing engineer** is a person who designs facilities, equipment, systems, and processes that are used in factories. **inżynier do spraw produkcji**

**material requirements planning** [N-UNCOUNT-U11] **Material requirements planning** is the process of determining the types and quantities of materials that a factory will need. **planowanie zapotrzebowania materiałowego**

**mathematics** [N-UNCOUNT-U11] **Mathematics** is a scientific subject that deals with numbers, equations, and calculations. **matematyka**

**mechanics** [N-UNCOUNT-U11] **Mechanics** is a scientific subject that addresses how machines function. **mechanika**

**metrics** [N-COUNT-U9] **Metrics** are sets of data that are used to determine how productive or effective a process is. **tu: dane statystyczne**

**middle management** [N-UNCOUNT-U10] **Middle management** is the group of people within an organization who manage daily operations, and make specific decisions about how tasks get accomplished. **zarząd średniego szczebla**

**minimize** [V-T-U5] To **minimize** something is to reduce it as much as possible. **minimalizować**

**model** [N-COUNT-U13] A **model** is a small or non-functional version of an object or system that has the same features and relationships between parts as the real version. **model**

**modify** [V-T-U13] To **modify** something is to change part of it, but not all of it. **modyfikować, częściowo zmieniać**

**motion-based system** [N-COUNT-U9] A **motion-based system** is a type of PMTS that uses the durations of simple human actions to determine how long a process should take. **system oparty na ruchu (system, którego częścią są modele opisujące czas wykonywania poszczególnych czynności przez pracownika, będący odmianą tzw. Predetermined Motion Time System)**

**moving part** [N-COUNT-U3] A **moving part** is a component on or in a machine that changes position in relation to other parts. **ruchoma część (np. maszyny)**

**MPS** [ABBREV-U7] **MPS** (master production scheduling) is an outline of the quantity of products that a company plans to produce and when the work should be completed. **główny harmonogram produkcji**

**MSDS** [ABBREV-U2] **MSDS** (material safety data sheet) is a document that provides information about toxic chemicals present in a certain environment. **karta charakterystyki substancji niebezpiecznej**

**multimedia** [ADJ-U11] If something is **multimedia**, it uses various technologies and methods of communication to express something. **multimedialny**

**nondestructive inspection** [N-COUNT-U6] A **nondestructive inspection** is the act of examining or testing something without straining or damaging its parts. **badanie nieniszczące**

**non-engineered standard** [N-COUNT-U9] A **non-engineered standard** is a method for determining something that is not based on precise, measurable factors. **standard, którego podstawą nie są precyzyjne, mierzalne dane**

**nonproductive** [ADJ-U8] If something is **nonproductive**, it does not directly create or complete anything. **tu: niezwiązany bezpośrednio z produkcją**

**objective** [N-COUNT-U10] An **objective**, or goal, is something that someone is trying to achieve or reach. **cel**

**on-the-job** [ADJ-U14] If something is **on-the-job**, it occurs while an employee is actively performing his/her work tasks. **w czasie pracy, przy pracy**

**operating system** [N-COUNT-U13] An **operating system** is software that allows a user to control a computer or other machine. **system operacyjny**

**operations manager** [N-COUNT-U15] An **operations manager** is someone who oversees and directs all activities in a factory. **dyrektor operacyjny**

**order winner** [N-COUNT-U10] An **order winner** is an aspect of the manufacturing process that is identified as especially successful or competitive, which the management then chooses to reinforce by allocating further resources for that particular factor. **czynnik powodujący wzrost liczby zamówień**

**overestimate** [V-T-U9] To **overestimate** something is to make a prediction about it that assumes it will be greater than it actually will be. **przecenić, zbyt wysoko oszacować**

**payload** [N-COUNT-U12] A **payload** is the size or weight of material that a robot is capable of manipulating. **tu: ładunek możliwy do obsługi przez robota**

**pendant** [N-COUNT-U12] A **pendant** is a device that sends an operator's commands to a robot's control system. **tu: pilot, za pomocą którego człowiek obsługuje robota**

**people issues** [N-COUNT-U8] **People issues** are the concerns of a business that are related to the needs and expectations of the employees. **sprawy pracownicze**

**performance evaluation** [N-COUNT-U14] A **performance evaluation** is the process of assessing how well an employee is doing his/her job, and identifying ways to improve. **okresowa ocena pracownika**

**photorealistic rendering** [N-COUNT-U13] A **photorealistic rendering** is an image that shows an extremely accurate representation of an object or system, and may be a still image or a moving image. **wizualizacja fotorealistyczna**

**physics** [N-UNCOUNT-U11] **Physics** is a scientific subject that addresses the behavior of objects and energy. **fizyka**

**PMTS** [ABBREV-U9] A **PMTS** (predetermined motion-time system) is an engineered standard for measuring work in which a process is broken down into a sequence of individual steps or actions. **standard oparty na pomiarach parametrów pracy, w którym dany proces produkcyjny rozłożony jest na sekwencje poszczególnych kroków**

**pneumatic** [ADJ-U12] If machinery is **pneumatic**, it uses pressurized gas to control mechanical motion. **pneumatyczny**

**policy** [N-COUNT-U7] A **policy** is a set of practices or guidelines that employees of a company follow. **polityka (zasady dotyczące pracowników firmy)**

**power surge** [N-COUNT-U3] A **power surge** is an event during which the voltage, current, or energy of an electrical circuit suddenly increases, often causing damage to an electrical system. **przepięcie (gwałtowny skok napięcia w obwodzie elektrycznym)**

**PPE** [ABBREV-U1] **PPE** (personal protective equipment) is any type of safety gear worn by workers to protect them from heat, chemicals, or other hazards. **środki ochrony osobistej**

**probationary period** [N-COUNT-U14] A **probationary period** is a time when management watches an employee closely to determine whether he/she is performing satisfactorily, and whether he/she should remain in the position. **okres próbny**

**process focus** [N-COUNT-U10] A **process focus** is a manufacturing setup in which a plant is designed to perform just one particular process, but may produce multiple products. **ukierunkowanie procesu produkcyjnego**

**process inspection** [N-COUNT-U6] A **process inspection** is the act of examining one particular step in the production process. **kontrola produkcji**

**process plan** [N-COUNT-U11] A **process plan** is a document including a complete set of information and instructions about how a product will be manufactured. **plan procesu produkcyjnego**

**product focus** [N-COUNT-U10] A **product focus** is a manufacturing setup in which a plant contains all of the processes that are necessary to produce just one particular product. **ukierunkowanie procesu produkcyjnego (w celu wytworzenia konkretnego produktu)**

**product variety** [N-COUNT-U7] A **product variety** is a measure of the number of different products that a company produces. **zróżnicowanie produktów, różnorodność produktów**

**product volume** [N-COUNT-U7] A **product volume** is the quantity of products that a manufacturer intends to produce within a particular amount of time. **wielkość produkcji**

**put-away** [EXPRESSION-U8] “**Put-away**” refers to the process of cleaning up a workspace after a task is complete. **porządkowanie miejsca pracy po wykonaniu danego zadania**

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**qualified** [ADJ-U4] If someone is **qualified**, he/she has the necessary knowledge or training to do something.  
**wykwalifikowany**

**quality control** [N-UNCOUNT-U5] **Quality control** is the process of testing products to ensure that they meet particular standards before allowing them to be distributed or sold. **kontrola jakości**

**quality controller** [N-COUNT-U15] A **quality controller** is someone who oversees testing and inspection to make sure that products meet particular standards. **kontroler jakości**

**R&D** [N-UNCOUNT-U15] **R&D** (research and development) is a department that develops new technology and improves existing technology. **dział badań i rozwoju**

**react** [V-I-U3] To **react** is to behave or act in a certain way in response to something. **reagować**

**reaction** [N-COUNT-U2] A **reaction** is a process in which multiple substances are combined and create a change. **reakcja**

**regular** [ADJ-U4] If something is **regular**, it occurs repeatedly at the same times or in the same manner. **regularny**

**reliability** [N-UNCOUNT-U5] **Reliability** is a measurement of how likely something is to function correctly. **niezawodność**

**repair** [V-T-U4] To **repair** something is to fix parts of it that are not functioning correctly. **naprawić**

**repetitive manufacturing** [N-UNCOUNT-U7] **Repetitive manufacturing** is a type of factory organization in which products are manufactured in stages, and each stage is responsible for one particular part or process. **produkcja etapowa**

**replace** [V-T-U4] To **replace** something is to remove it and put something else in its place. **zastąpić**

**report** [N-COUNT-U4] A **report** is a document that provides formal information about something. **raport, sprawozdanie**

**resource** [N-COUNT-U10] A **resource** is something, such as a material or location, that is useful in some way. **zasób**

**retrieve** [V-T-U13] To **retrieve** something is to bring it from the place where it is kept to a place where it is needed. **pobierać**

**risk** [N-COUNT-U5] A **risk** is a possibility or likelihood that something bad will occur. **ryzyko**

**robotics** [N-PLURAL-U12] **Robotics** is the science of designing and manufacturing robots. **robotyka**

**roving inspection** [N-COUNT-U6] A **roving inspection** is the act of moving around the production floor and examining products at different stations. **kontrola produktu, kolejno na różnych etapach jego produkcji**

**sales** [N-UNCOUNT-U15] **Sales** is a department that is responsible for finding clients or customers to buy a company's products. **dział sprzedaży**

**sampling** [N-UNCOUNT-U6] **Sampling** is the act of testing a small number of items to determine the likely qualities of a larger batch. **próbkowanie**

**sanitize** [V-T-U4] To **sanitize** something is to clean it thoroughly, removing all unwanted materials from it. **odkażeć, dezynfekować**

**self-check** [N-COUNT-U6] A **self-check** is an inspection that an individual worker performs on his/her own work. **samokontrola, kontrola we własnym zakresie**

**self-reporting** [N-UNCOUNT-U9] **Self-reporting** is a process in which work measurements are based on a particular operator's assessment of his/her own performance. **sprawozdanie na swój temat, sprawozdawczość własna**

**serial robot** [N-COUNT-U12] A **serial robot** is a robot that consists of a series of parts connected by joints. **robot składający się z wielu połączonych ze sobą części ruchomych**

**setup inspection** [N-COUNT-U6] A **setup inspection** is the act of examining the machines and workspaces that will be used during manufacturing. **kontrola gotowości urządzeń do produkcji**

**shadow** [V-T-U14] To **shadow** someone is to follow him or her and watch his/her activities closely, in order to learn from them. **tu: uczyć się czegoś nowego poprzez towarzyszenie komuś doświadczonemu (np. w nowej pracy)**

**sharpen** [V-T-U4] To **sharpen** something is to make its edge thinner so that it can cut things more easily. **ostrzyć, naosztyrzyć**

**shipping inspection** [N-COUNT-U6] A **shipping inspection** is the act of examining the packaging that a product will be shipped in. **kontrola jakości pakowania produktu**

**skilled** [ADJ-U14] If a job is **skilled**, it must be performed by workers with a particular background or education. **wykwalifikowany**

**specification** [N-COUNT-U5] A **specification** is one particular quality or measurement. **specyfikacja**

**spill** [N-COUNT-U2] A **spill** is an accident in which liquid drops onto the floor or over another surface. **wyciek**

**sterilize** [V-T-U2] To **sterilize** something is to clean it very thoroughly so that it does not contain any bacteria. **sterylizować**

**strategy** [N-COUNT-U10] A **strategy** is a planned method or system for reaching a goal. **strategia**

**structural** [ADJ-U10] If a decision is **structural**, it relates to the physical aspects of a company's facilities, equipment, and technology. **strukturny**

**synchronized** [ADJ-U7] If two things are **synchronized**, they are planned to occur at the same time, or in a particular order so that they work together. **zsynchronizowany**

**technician** [N-COUNT-U4] A **technician** is someone with special training to repair and maintain particular machines or systems. **technik**

**test planning** [N-UNCOUNT-U5] **Test planning** is the process of developing a reliable way to determine the acceptability of a product. **przygotowanie testu mającego na celu kontrolę produktu**

**testing** [N-UNCOUNT-U5] **Testing** is the process of observing something in order to assess its condition or function. **testowanie, sprawdzanie**

**thermodynamics** [N-UNCOUNT-U11] **Thermodynamics** is a scientific subject that addresses the behavior of heat. **termodynamika**

**tight** [ADJ-U5] If the tolerance of a product is **tight**, it varies very little from one unit to the next. **tu: surowy, ostry**

**tolerance** [N-COUNT-U5] A **tolerance** is a measurement of the amount of variation in a unit of a product, and may only reach a certain level before the item is no longer functional or acceptable. **tolerancja (dopuszczalne odstępstwo od normy)**

**toxic** [ADJ-U2] If something is **toxic**, it contains materials that can make someone sick. **toksyczny**

**tracking strategy** [N-COUNT-U10] A **tracking strategy** is a type of production strategy in which a company seeks a balance between lead strategy and lag strategy, and makes frequent adjustments to accommodate changing demand. **strategia śledzenia rynku, która ma na celu optymalne dostosowanie produkcji do zmieniającego się popytu**

**training** [N-UNCOUNT-U3] **Training** is the process of teaching people how to do something. **szkolenie (pracowników)**

**translate** [V-T-U13] To **translate** data is to change them from one form into another, so that a computer and a user can read the same information in different formats. **tu: zmieniać format zapisu danych**

**uniform** [N-COUNT-U1] A **uniform** is a standard type of clothing that is worn by people within an organization, company, or group. **ubranie służbowe, strój pracowniczy**

**unskilled** [ADJ-U14] If a job is **unskilled**, it can be performed by workers who do not have a particular background or education. **tu: niewymagający kwalifikacji**

**upper management** [N-UNCOUNT-U10] **Upper management** is the group of people within an organization with the highest level of control, and usually make general decisions about the goals and philosophy of the company. **wyższa kadra kierownicza**

**versatile** [ADJ-U14] If something is **versatile**, it includes a range of different qualities or abilities. **zróżnicowany**

**volatile** [ADJ-U2] If something is **volatile**, it is likely to behave in a dangerous and unpredictable manner. **nieprzewidywalny, zmienny, niestabilny, wybuchowy**

**waste hopper** [N-COUNT-U2] A **waste hopper** is a large container that is used to collect and dispose of unwanted materials. **pojemnik na śmieci, kontener**

**waste** [N-UNCOUNT-U8] **Waste** is time or material that is not useful or productive. **odpady**

**work envelope** [N-COUNT-U12] A **work envelope** is the area that can be reached by a robot's end-effector. **zasięg pracy robota**

**work measurement** [N-UNCOUNT-U9] **Work measurement** is the process of determining how productive a work process is, and includes all the time, material, and any other cost-inducing factors in the process. **pomiar produktywności**

**work sampling** [N-UNCOUNT-U9] **Work sampling** is the process of observing a small number of workers to form a conclusion about the performance of a larger group. **próbkowanie pracy (metoda badania środowiska pracy)**

**workmanship standards** [N-COUNT-U14] **Workmanship standards** are a set of guidelines or expectations about the quality of a product that employees of a company must follow. **standardy wykonawstwa**

**worn out** [ADJ-U4] If something is **worn out**, it is weak or damaged as a result of heavy use. **zużyty, zniszczony**