Training

Advancing yourself

Valmet
FORWARD

Achieve real results from employee training

- Reduces safety risks associated with lack of know-how
- Lessens the risk of damage to equipment or devices
- Better use of system features increases productivity
- Faster troubleshooting and resolution of performance issues
- Minimizes downtime in event of equipment failure
- Boosts confidence and motivation in personnel

Did you know?

- Around 10% of system features change annually
- Typically, every 5th year, a major shift occurs with 25% of system features changing
- Around 66% of companies provide employee training
- Yet, around 50% of employees in these companies receive training
- Most employee training is 1-5 days per employee, per year
- Employee training is often ad-hoc without long-term planning
- Training usually consists of about 1% of labor costs

*Training figures according to Eurostat and other national statistics, 2013

Training

Competence

Risk control

Well-trained employees are a key asset to any organization

A competent team has the proper skills, knowledge and confidence to perform their job roles and make the most out of systems and equipment.

As the automation environment is constantly evolving, so must employee knowledge and skills. It is essential that employees stay up-to-date and when necessary, receive training to refresh their existing skill sets. Proper training ensures that employees use equipment and features to the full potential and ensures that employees remain current with product features.

Improvements in production

By knowing how to properly use the system controls and features, employees can make the best use of equipment and devices, maximizing plant availability. The correct use of equipment and systems can reduce resource usage, increase production yield and improve product quality.

Training can also improve production availability, as incorrect usage tends to shorten equipment life and may increase the chance of failure. Additionally, effective troubleshooting carried out by skilled personnel can also minimize downtime should unexpected failures occur.

Reducing workplace risk

Production systems can be complex and a small error from an employee can result in a loss of production availability and can potentially have a significant impact on plant safety and the local environment.

Trained employees can carry out their work tasks safely and in line with safety and environmental protocols, decreasing the risk of workplace hazards. Skilled use of equipment safeguards personnel, protects devices from damage caused by misuse, and can also result in wider-reaching effects on plant environmental sustainability.

Each employee makes a difference

Employee competence from training brings a fast return on investment on many tiers. Firstly, a competent employee is often a happier employee. Lacking adequate training can leave personnel feeling ill-equipped to perform job tasks and may result in a lack of initiative or motivation.

Training can also ease the transition of role changes within a plant, enabling personnel to move between roles more easily. This can provide greater flexibility for plant management when it comes to personnel changes and be a motivating factor for employees.

Training at its best

All of Valmet's training courses are planned with the customer in mind, with relevant topics to suit your business needs. Valmet, backed by a global network of experts, understands the pace in which automation systems develop and passes on this knowledge to the customer through up-to-date training.

Instruction can take place through a variety of means including classroom-based, on-site or off-site courses. In-depth expertise is provided by knowledgeable instructors on Valmet's entire product range, spanning individual product or feature knowledge, to more advanced information on systems, processes and controls. Whenever possible, lectures are blended with practical exercises.

Greater course customization is possible through the customized training option. Through this selection, Valmet will work closely with you to develop longer-term training plans which address any competence gaps within your organization.

Valmet's automation training - at a glance

- Valmet has dozens of experienced trainers around the globe

- Valmet holds around 500 courses each year

- Valmet trains around 2,000 people each year

From basic to optimized skills – customer training path

Valmet's standard programs are logically divided into modules to make course selection easy and straight-forward. The customer training path depicts how Valmet courses develop skill levels progressively and how courses are related to one another. Courses are also divided according to job description or primary role in the company, to further ease selection.
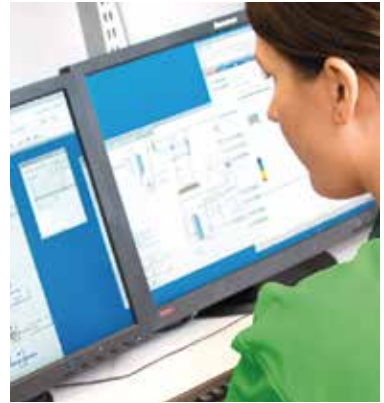
Valmet DNA Training

Job Description	Step 1	Step 2	
Production management & development	• Valmet DNA Basic • Valmet DNA Report Basic	• Valmet DNA Operation • Valmet DNA Report Operation	
Job Description Operators	**Step 1** • Valmet DNA Operation • Valmet DNA Report Operation		
Job Description Automation maintenance & engineering	**Step 1** • Valmet DNA Basic • Valmet DNA Report Basic • HIMA Basic	**Step 2** • Valmet DNA Maintenance • Valmet DNA Engineering • Valmet DNA Historian Maintenance • Valmet DNA Report Engineering • HIMA Maintenance	**Step 3** • Valmet DNA System Maintenance • Valmet DNA PROFIBUS DP • HIMA Engineering • Valmet Field Device Manager • Valmet DNA Network • Valmet DNA Wireless Networks • Valmet DNA Security • Valmet DNA Sequence • Valmet DNA Picture Designer • Valmet DNA Help • Valmet DNA Network Designer

Valmet Condition Monitoring Training

Job Description	Step 1	Step 2	
Automation & mechanical – Maintenance & engineering	• Valmet DNA Machine Monitoring • Sensodec 6S • Valmet Maintenance Pad and Valmet Machine Analyzer	• Valmet Vibration Measurement and Analysis	

Expert guidance

Hands-on practice

Valmet IQ Training

Job Description	Step 1	Step 2	Step 3
Production management & development	• Valmet IQ Basic	• Valmet IQ Operation	
Operators	• Valmet IQ Operation		
Automation maintenance & engineering	• Valmet IQ Basic	• Valmet IQ Quality Measurement Maintenance	• Valmet IQ MD Controls • Valmet IQ CD Controls • Valmet IQ Color Measurement and Control • Valmet IQ Analysis Tools

Valmet PQV Training

Job Description	Step 1	Step 2
Production management & development	• Valmet PQV Basic	• Valmet PQV Operation
Operators	• Valmet PQV Operation	
Automation maintenance & engineering	• Valmet PQV Basic	• Valmet PQV Maintenance

Valmet Analyzers Training

Valmet delivers training targeted at specific analyzers and systems according to customer's requirements.

Customized Training

Valmet provides tailor-made options to suit your individual business and training needs. The scope, content and class site of the courses are customizable.

Valmet training courses

Training is an essential part of Valmet's long-term customer relationship. To see that our customers get the most out of their systems, we provide quality training to suit your requirements, whether it is at the very beginnings with a new automation system, or as refresher training to ensure employees are up-to-date. Courses range from basic levels to more advanced training options on Valmet products.

   Standard training courses are regularly scheduled globally for your convenience. Further information can be found at: valmet.com/training

Valmet DNA courses
Valmet training on specified parts of the Valmet DNA

Valmet DNA Basic [duration: 2 days]

Content	Outcome
Content: A comprehensive survey of the operation, structure and operating concepts of Valmet DNA. Basic concepts of maintenance, application planning and the use of the different nodes are examined.	**Outcome:** The participant will have an overview of Valmet DNA.

Valmet DNA Operation [duration: 0.5-1 day]

Content	Outcome
Content: A comprehensive survey of the operating concepts and control room structure of Valmet DNA.	**Outcome:** The participant will be able to operate Valmet DNA.

Valmet DNA Maintenance [duration: 3 days]

Content	Outcome
Content: A detailed review of the functions, structures, maintenance and calibration procedures of the Valmet DNA hardware units and peripheral devices. This includes diagrams, trouble-shooting, testing and fault rectification.	**Outcome:** The participant will be able to locate and replace faulty hardware and be familiar with typical and simple loop diagrams.

Valmet DNA Engineering [duration: 4 days]

Content	Outcome
Content: A detailed survey of the use of the customer's programming equipment, primarily regarding application program modifications and the different phases of Valmet DNA's engineering and application program configuration.	**Outcome:** The participant will be able to carry out application program modification and take it into use.

Valmet DNA Picture Designer [duration: 2 days]

Content	Outcome
Content: A detailed review of the control room pictures and picture hierarchy, including application program configuration and adding new pictures.	**Outcome:** The participant will be familiar with DNA Picture Designer and be able to create new pictures and change picture hierarchy.

Valmet DNA Sequence [duration: 2 days]

Content	Outcome
Content: A detailed review of the sequence structures and functions, and application program configuration principles.	**Outcome:** The participant will be able to use the engineering sequence application and be familiar with Valmet DNA Engineering Sequence CAD tool.

Valmet DNA Network Designer [duration: 1 day]

Content	Outcome
Content: A detailed review of the creating and editing DNA Network Designer documents.	**Outcome:** The participant will be able to update existing documents and create new ones.

Valmet DNA System Maintenance [duration: 3 days]	
Content: The system structures and functions, including engineering activity and server system file configuration principles.	**Outcome:** The participant will be able to understand and edit system configuration and be familiar with the Backup Server Manager tool.
Valmet DNA Network [duration: 2 days]	
Content: A detailed review of the Valmet DNA network structure, communication and TCP/IP-protocol, network diagnostic and also network components.	**Outcome:** The participant will know Valmet DNA Network and communication protocols and be able to resolve typical problems.
Valmet DNA Security [duration: 1 day]	
Content: A detailed review of the secure network structure and different malware and viruses.	**Outcome:** The participant will know Valmet DNA security solutions and risks. Additionally, Valmet DNA network security maintenance will also be covered.
Valmet DNA Field Device Manager [duration: 1 day]	
Content: A detailed overview of the DNA Field Device concept with practical exercises to give additional insight into functions of field device management.	**Outcome:** The participant will be able to manage devices directly from engineering environment and will also be familiar with typical device descriptions and changing device parameters.
Valmet DNA PROFIBUS DP interface [duration: 1 day]	
Content: A detailed review of the PROFIBUS DP and PA interface, with the Valmet DNA environment. Practical exercises will give insight into DP interface configuration and associated tasks. Process Controller applications and device diagnostic features are also explained with examples.	**Outcome:** The participant will be able to manage PROFIBUS DP and PROFIBUS PA environments and be familiar with configuration and device changes procedures.

Information Management courses
Valmet training to further information management with Valmet DNA

Valmet DNA Report Basic [duration: 2 days]	
Content: An overview of the Valmet DNA Information system is presented. The configuration environment, fundamentals of system maintenance, and user tools are also covered.	**Outcome:** The participant will get basic knowledge of the system and will be able to modify and add simple reports and trends.
Valmet DNA Report Operation [duration: 0.5-1 day]	
Content: An overview of customer's Valmet DNA Report environment and the basics of data collection. The training will use the same end-user tools which the customer has available.	**Outcome:** The participant will be able to use Valmet DNA Report tools.
Valmet DNA Historian Maintenance [duration: 3 days]	
Content: The equipment of Valmet DNA Historian, operating system and configuration tools will be presented in this course. In addition the system maintenance, monitoring and backup functions will be studied.	**Outcome:** The participant will be able to conduct normal maintenance tasks.
Valmet DNA Report Engineering [duration: 3 days]	
Content: The Valmet DNA Report environment, fundamentals of configuration, reporting, trends, Excel reporting and other reporting tools will be presented. Process calculations will be created using different methods.	**Outcome:** The participant will be able to modify and add reports and create process calculations.

Valmet IQ courses
Valmet training spanning a wide range of skills and functions for Valmet IQ products

Valmet IQ Basic [duration: 1 day]

Content: This course provides a comprehensive survey of the operation, structure and operating concepts of the Valmet IQ Quality Control System.

Outcome: The participant will be familiar with the structure and general features of Valmet IQ QCS and have the knowledge required by (some) other Valmet IQ training courses.

Valmet IQ Operation [duration: 0.5-1 day]

Content: Typical features of Valmet IQ user interface, as well as, quality monitoring, production data, quality controls, and grade change.

Outcome: The participant will understand the quality overview display and be able to operate MD/CD controls, including Valmet IQ Scanner and familiarity with IGC Grade Change.

Quality Measurement Maintenance [duration: 4 days]

Content: This course provides a detailed review of the functions, structures, maintenance procedures of the Valmet IQ Measurement system.

Outcome: The participant will be familiar with Valmet IQ Measurement system.

Valmet IQ Analysis Tools [duration: 1 day]

Content: The analysis tools integrated in the Valmet IQ measuring system, including basic applications and the advanced analysis package.

Outcome: The participant will know the traversing features of the Valmet IQ Scanner and will be familiar with the methods used in stability analysis and MD/CD-separation.

Valmet IQ MD Controls [duration: 4 days]

Content: A review of the theory and algorithms of Valmet IQ machine direction multivariable controls.

Outcome: The participant will be familiar with Valmet IQ MD Controls and will be able to evaluate the process and current MD control performance as well as maintain the MD control tuning.

Valmet IQ CD Controls [duration: 4 days]

Content: A review of the theory and algorithms of Valmet IQ profile controls. Controls are detailed through the use of theory and with the help of a Valmet DNA simulator.

Outcome: The participant will be familiar with Valmet IQ CD Controls.

Color Measurement and Control [duration: 2 days]

Content: A review of the theory and algorithms of color measurement and control as used in Valmet IQ QCS. The course is directed to QCS maintenance personnel.

Outcome: The participant will be familiar with Valmet IQ Web Color Measurement and Valmet IQ Color MD Control.

Valmet Condition Monitoring courses
Valmet training on machine condition monitoring

Valmet Maintenance Pad [duration: 1 day]

Content: An overview of the functions of the Valmet Maintenance Pad portable measurement system. The course covers software, sensors and platform, and basics for maintenance route planning. Practical exercises are carried out on a fully functional measurement system including Valmet Maintenance Pad and Wireless Sensor.

Outcome: The participant will be familiar with Valmet Maintenance Pad measurement system and can carry out basic offline vibration measurements and route planning.

Valmet Vibration Measurement and Analysis [duration: 1 day]	
Content: An introduction to vibration measurement and analysis, vibration characteristic values, time domain and spectrum analysis, envelope analysis supplemented by STA (Synchronized Time Average) analysis.	**Outcome:** The participant will be able to perform typical vibration analyses and utilize this information when determining the mechanical condition of the rotating mechanical element.

Valmet DNA Machine Monitoring [duration: 2 days]	
Content: This course details the DNA Machine Monitoring features as well as the theory and main concepts of mechanical condition monitoring.	**Outcome:** The participant will understand DNA Machine Monitoring tuning pictures, acceleration sensors and the Valmet I/O units used by DNA Machine Monitoring.

Valmet PQV courses
Valmet training on the basic operation and maintenance of the Valmet PQV system

Valmet PQV Basic [duration: 1 day]	
Content: Basic knowledge of operating concepts of Valmet PQV.	**Outcome:** The participant will be able to operate the Valmet PQV system.

Valmet PQV Maintenance [duration: 2 days]	
Content: A detailed review of the functions, structures, maintenance and calibration procedures of the Valmet PQV hardware units and peripheral devices. Practical exercises give an insight into troubleshooting, fault rectification, measuring and maintenance by using self-diagnostics.	**Outcome:** The participant will be able to locate and replace a faulty hardware unit. In addition, they will be able to check or modify software functions and settings.

HIMA courses
Valmet training on HIMA basic skills, maintenance and application engineering

HIMA Basic [duration: 1 day]	
Content: The course provides a comprehensive survey of the operation of HIMA Safety Logic Interface in Valmet DNA. Basic concepts of HIMA hardware, application program and diagnostics are studied.	**Outcome:** The participant will have understanding of HIMA Safety Logic Interface in Valmet DNA.

HIMA Maintenance [duration: 1 day]	
Content: The course provides a detailed review of the operation of HIMA Safety Logic Interface in Valmet DNA. Main concepts of HIMA hardware, application program and diagnostics are studied. Practical exercises give an insight into troubleshooting, fault rectification, measuring and maintenance by using Force-editor.	**Outcome:** The participant will be able to locate and replace a faulty hardware unit and also will be familiar with typical safety applications and test safety functions.

HIMA Engineering [duration: 2 days]	
Content: The course reviews the different phases of HIMA Safety Logic Interface in Valmet DNA application engineering. Application program configuration principles for individual safety functions are explained. The different steps connected with the most typical modifications and downloading are also practiced in exercises.	**Outcome:** The participant will be able to carry out the application program modification and will also be familiar with typical safety applications and test safety functions.

Customized training –
tailored to meet your challenges

Valmet's customized training takes flexibility one step further and offers the customer a fully tailored solution streamlined to meet individual competence goals and related business requirements. In line with the customer's aims, courses can be chosen directly off-the-shelf from Valmet's standard training options or designed in accordance with individual customer requirements.

Competence process

Assessment
- Assessment of the technical competence of your team against the goals
- Addressing changing production and maintenance goals

Analysis
- Analyzing the assessments of competence
- Identifying any possible competence gaps

Development plan
- Identifying relevant training needed to bridge gaps in competence
- Scheduling training according to your requirements

Training
- Carrying out the specified training

Training

Assessment

Continuous development

Development Plan

Analysis
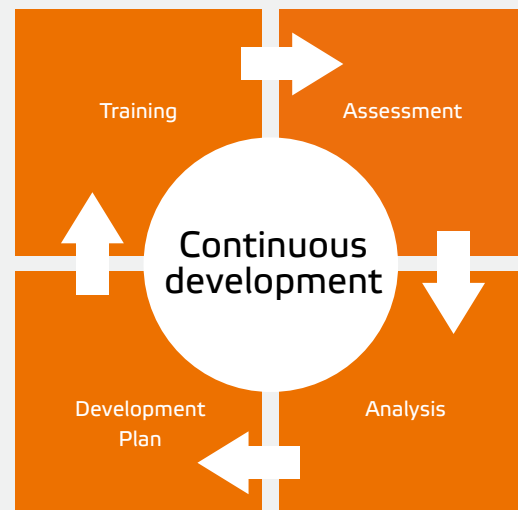
Customer cases with proven results

Getting the
most from
your team

Competence

Anonymous Pulp and Paper, UK

Background:

- The plant was founded in 1984 and produces newsprint for UK market
- Represents UK's largest and most modern integrated pulp and paper producer
- Is the UK's largest consumer of recovered waste paper
- Target was to improve staff competence and efficiency in operations

Solution:

Flexible training with specialized courses

Results:

- Increase in staff competence in operations and troubleshooting
- Positive results in staff initiative and confidence in abilities
- Improvements in collective problem-solving and expertise sharing

Customer feedback:

"The training was very clear, the trainer knowledgeable. He had researched our system and used this as an example throughout the course."

"It was an excellent course even for a more experienced person. I would recommend frequent recap training for others as well."

"I learned exactly what I needed to learn. The content was flexibly adjusted based on participants' needs and our specific questions were solved."

Automation Services Portfolio

Plant Availability
Cost-efficiency

Customer Care
Minimize your downtime

Intelligent Maintenance
Reach target availability

Spare Part Management
Ensure spares availability

Life Cycle
Optimize total cost of ownership

Process Performance
Revenue growth

Performance Improvements
Performance Study

Performance Solution

Performance Sustainability

Life Cycle
Best production efficiency

Risk Control
Minimal risks

Safety
Minimize safety hazards

Environment
Reduce environmental risks

Security
Effective defense

Competence
Skilled staff for getting the most out of assets

Project and Engineering   On time and on budget

Consultancy
Choose the right solutions

Project Management
Proven experience in project execution

Engineering
Integrate processes, machinery and automation

Start-up
Ensure a smooth start-up

Valmet