

	TITLE	Process Engineer	Competence profile																	
			10	20	30	40	50	60	70	80	90	100								
			kp	km	ke	up	ka	pu	mm	eu	st	we								
1	Operating Machinery, Performing Plant Operation Procedures	Can develop and approve start-up and shutdown procedures on process plant. Can approve regular operating procedures. Is able to advise and approve commissioning procedures.		●																
2	Process Control, Plant Monitoring and Control	Responsible for environmental aspects, calibration approvals, control system procedure approvals. Approve commissioning procedures. Can Customize the Process control System according to the needs of various production processes.				●														
3	Analysis of the Process, Fault Finding and Problem Finding	Complex problem support. Organise a structured repair schedule. Responsible for fault diagnostic systems. Plan solutions to problems																		●
4	Process Hazards and Emergency Procedures	Can define safety trip settings. Hazop and similar risk studies, and alarm priority plans. Can approve emergency procedures. Can assess risks within operating procedures and can compose guide lines for hazards and emergency procedures Can analyse and assess actual accident causes together with experts.																		●
5	Logistic Jobs	Can give technical assistance to the definition of the production plan and of the production schedule, to the purchase of items and products used in the process and to give technical assistance concerning details of the products and packaging for output selling and other product or by-product disposals.		●																
6	Quality Control	Can define the requirements for the raw materials and input products. Can define the quality range for the output product and to agree selling specifications with relevant company functions, such as Marketing and R&D. Can define and demonstrate the process actions and process and product controls to maintain and to improve the quality standards. Can interpret causes and consequences of quality deviations and give directions to achieve quality standards in complex situations. Can promote quality improvements to colleagues using relevant models and methods of process development and process improvement.																		●
7	Maintenance Work and Safety Working Conditions	Can recognise faults and organise repairing. Can design and plan plant modifications, in agreement with plant manager. Can give technical advice and approvals to maintenance events, including periodical plant stoppages with several parallel actions, involving resource deployment, related actions and finding critical paths. Can agree with maintenance specialists on testing and maintenance plans and policies. Can advise on the SHEQ conditions in the plant and their continuous improvement.																		●
8	Leadership	Can converse freely with his staff and colleagues, and gain the trust of his staff, colleagues and peers.																		●
9	Organisational behaviour and Personnel Management	Can provide engineering specific training to operations, commissioning and maintenance staff. Can advise on personnel requirements for process and plant actions, including commissioning and upgrades. Responsibility for the disposal of staff according to the needs of the production plan. Can define work conditions together with the HR-department according to the needs of production and according to the rules and legal requirements. Can maintain a fair and problem solving oriented dialogue with other company departments, to achieve smooth and efficient running of the plant.																		●
10	Budgeting and reporting	Can provide basic calculations and costing for process and plant design and its development and can monitor and analyse the cost plans under their control																		●
11	Process and plant continuous improvement	Control system updates. Process action updates. Design and plan plant upgrades, e.g. for environmental, energy usage, de-bottlenecking, product quality, and reliability/safety reasons.																		●
12	Process development	Can recognise and define the reasons for improvement to the plant or process. Can source new ideas and manage knowledge. Can design and develop a solution to the improvement specification. Can define the testing plans and operability, and the safety and quality checks, associated with the development.																		●
13	Plant design	Can define a Functional Design Specification for a new process or process plant or control system. Can design a new process or process plant or control system to meet a Functional Design Specification. Can implement the requirements of approval authorities for new designs.																		●
14	Information management	Can communicate problem solution planning to management. Can create plant safety reports for management and authorities. Can carry out process and plant accident analysis and reporting																		●

Notes

- SOP = Standard Operating Procedures, SHEQ = Safety, Health, Environment and Quality to know fundamental principles (kp); to know math./ phys. Principles (km); to know examples (ke); to use examples in praxis (up); to know applications in the field (ka); to use fundamental principles (pu); to master math./ phys. Principles (mm); to understand examples (eu); to solve tasks in team (st); to know applications in the field and work together with other experts (we)

standardised competence profiles

for the qualification level

- **General operator** ● ,
- **Supervisor** ● and
- **Process Engineer** ●

	TITLE	2	4	6	8	10	12	14	16	18	20
1	Operating Machinery, Performing Plant Operation Procedures	●			●						●
2	Process Control, Plant Monitoring and Control		●			●				●	
3	Analysis of the Process, Fault Finding and Problem Finding				●	●					
4	Process Hazards and Emergency Procedures				●				●		
5	Logistic Jobs	●	●		●						
6	Quality Control		●		●						
7	Maintenance Work and Safety Working Conditions	●			●	●					
8	Leadership	●			●	●					
9	Organisational behaviour and Personnel Management				●	●		●			
10	Budgeting and reporting				●	●					
11	Process and plant continuous improvement		●		●						
12	Process development				●	●					
13	Plant design	●	●			●					
14	Information management		●	●		●					