Basic requirements for working alone are:

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no	lab	activities	threats	evaluation	1 permitted	2 permitted	3 permitted	4 prohibited	5 prohibited	notes	area / activity
1	CSM	working with the high temperature tribometer	high risk	small area burns on finger or hand, electric shock, toxic zinc or oil vapours				X		appropriate PPE must be used	tribological investigations
2	CSM	working with the spiral tribometer	high risk	small area burns on finger or hand				X			
3	CSM	working with the press hardening system in automatic mode	high risk	serious injuries due to bruising or burns				X		Plant is protected by separating safety features	press hardening
4	CSM	working with the press hardening system in setup mode	very high risk	serious injuries due to bruising or burns					X		
5	CSM	working with the annealing and hardening kiln	very high risk	extensive burns, unconsciousness					X	appropriate PPE must be used, observe the safety data sheet	heat treatment
6	CSM	working with the LMD system and 5-axis milling machine LASERTEC 65 3D	low risk	minor injuries		X				system is protected by system-specific safety devices, observe the safety data sheet	3D printing, rapid prototyping, CNC production
7	CSM	setup and maintaining the LMD system and 5-axis milling machine LASERTEC 65 3D	high risk	serious injuries caused by bruises or cuts				X		appropriate PPE must be used, observe the safety data sheet	logistics
8	CSM	working with CNC lathe CTX 400 E	low risk	minor injuries		X				system is protected by system-specific safety devices, observe the safety data sheet	CNC production
9	CSM	setup and maintaining CNC lathe CTX 400 E	high risk	serious injuries caused by bruises or cuts				X			
10	CSM	working with the indoor overhead crane H2B3	high risk	serious injuries caused by bruises				X		appropriate PPE must be used, observe the safety data sheet	logistics, maintenance
11	CSM	automatic transfer system	low risk	minor injuries		X					
12	CSM	working with the ENGEL grantry robot (robot not in use)	very high risk						X		
13	CSM	working with the FANUC robot CR-35iA (robot for optical measurement)	very high risk						X		
14	CSM	working with the PUMA robot (robot für HMI programming)	very high risk						X		
15	CSM	working with the FANUC robot CR-10iA (robot for assembly and handling)	very high risk						X		
16	CSM	working with the KUKA LBR iiwa 14 R820 (robot for assembly and handling)	very high risk						X	robot without seperating protective and safety features, observe the safety data sheet	robotics, automation
17	CSM	working with the UNIVERSAL ROBOTS UR10 (robot for assembly and handling)	very high risk	severe injuries due to crushing					X		
18	CSM	working with the STÄUBLI RS80 (robot for parts sorting)	very high risk						X		
19	CSM	working with the KUKA KR 3 R540 (robot for assembly and handling in an own housing)	very high risk						X		
20	CSM	working with the KUKA KRC1 in (robot not in use)	very high risk						X		
21	CSM	work on the test bench/model "railway coupling" (railway automation)	very high risk						X	FH test bench without seperating protective and safety features	railway automation
22	MW	working with the conventional universal lathe EMCOMAT-20D	high risk					X			
23	MW	working with the milling machine EMCOMAT FB-4	high risk	severe injuries due to crushing, pulling in or catching				X			
24	MW	working with the box column drill	high risk					X			mechanical manufacturing
25	MW	working with the mitre saw PERFECT 275	high risk					X		appropriate PPE must be used, observe the safety data sheet	
26	MW	working with the FANUC ROBOCUT α-1iB water bath wire EDM	low risk	minor injuries		X					
27	MW	setup and maintaining the FANUC ROBOCUT α-1iB water bath wire EDM	high risk	evere injuries due to crushing or cuts				X			logistics, maintenance
28	MW	working with the blasting cubicle PEENMATIC 770S	low risk	minor injuries		X					reworking of production parts
29	RPD1	working with the metal laser melting machine CONCEPT LASER M1 cusing	low risk	minor injuries		X					3D printing, rapid prototyping
30	RPD1	working with the metal laser melting machine CONCEPT LASER M2 cusing	low risk			X					
31	RPD1	setup and maintaining the metal laser melting machine CONCEPT LASER M1 cusing	high risk	severe injuries due to crushing, cuts or contact with metal powder				X			logistics, maintenance
32	RPD1	setup and maintaining the metal laser melting machine CONCEPT LASER M2 cusing	high risk					X			
33	RPD1	working with the vacuum oven 9030-0030	high risk	small burns on finger or hand				X			
34	RPD1	working with the ultrasonic screening unit ARTECH DGS35-50-S	low risk	minor injuries		X					metal powder preparation
35	RPD1	working with the CONCEPT LASER QM powder quality monitoring system	low risk			X				appropriate PPE must be used, observe the safety data sheet	
36	RPD1	maintenance of the ultrasonic sreening unit ARTECH DGS-50-S	high risk	severe injuries due to contact with metal powder				X			maintenance
37	RPD1	maintenance of the CONCEPT LASER QM powder quality monitoring system	high risk					X			
38	RPD1	working with the blasting cabin PEENMATIC 770S	low risk	minor injuries		X					reworking of production parts
39	RPD1	working with the rapid prototyping 3D-printer SPECTRUM Z510	no to low risk	office-like activities	X						3D printing, rapid prototyping
40	RPD1	reworking printed parts with toxic or hot chemicals/substances	very high risk	acute poisoning, chemical burns to eye/skin, unconsciousness					X		reworking of production parts
41	RPD2	working with the coordinate measuring system CMM CONTURA 7/7/6 RDS	no to low risk	office-like activities	X						metrology
42	RPD2	working with the optical measuring system GOM-ATOS Compact Scan	no to low risk	office-like activities	X						
43	RPD2	working with the mobile measuring arm ABSOLUTE ARM 85	no to low risk	office-like activities	X						

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44	RPD3	working with the 3D printer HAGE 3DP-A2 (FDM-printer)	low risk	small burns on finger or hand		X					
45	RPD3	working with the COMPOSER A3 (FDM-printer)	low risk	small burns on finger or hand		X					3D printing, rapid prototyping
46	RPD3	working with the FORM 3 (SLA-printer)	high risk	poisoning, chemical burns to eye/skin					X	appropriate PPE must be used, observe the safety data sheet	
47	RPD3	working with the FORM WASH (SLA-parts cleaning unit)	high risk	poisoning, chemical burns to eye/skin					X		
48	RPD3	working with the FORM CURE (SLA-parts reworking unit)	low risk	small burns on finger or hand		X					reworking of 3D printed parts
49	RPD3	working with the powder recycling station ZD5	no to low risk	office-like activities	X						
50	RPD3	working with the MCOR IRIS (SDL-printer)	no to low risk	office-like activities	X					observe the safety data sheet	3D printing, rapid prototyping
51	RPD3	mainenance of the MCOR IRIS (SDL-printer)	very high risk	severe injuries due to crushing or cuts					X		maintenance
52	RPD3	reworking printed parts with toxic or hot chemicals/substances	very high risk	acute poisoning, chemical burns to eye/skin, unconsciousness					X	appropriate PPE must be used, observe the safety data sheet	reworking of 3D printed parts