

Generalities:

- √ Clean pumps and pump motors generally at least once a week.
- √ Maintenance work that can solely be done in particular by one company are highlighted purple.
- √ Follow the safety- and health advices mentioned in the O&M manuals when carrying out maintenance work.
- √ Check the condition of the grease if the equipment has been in storage for more than 12 months (according motors and pumps).
- √ All maintenance must be carried out in compliance with Health & Safety Regulations and also ATEX Regulations where appropriate.
- √ Motors should be kept clean, free of dust, debris and oil. Soft brushes or clean cotton rags should be used for cleaning.
- √ It is possible that the cells consist more text than visible. Enlarge the cells if necessary

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval										notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other		
	Airwell	chiller	check the temperature of the leaving fluid							1								
			check the pressure drops in the heat exchanger								x							
			check for electric absorption								x							
			check suction pressure and temperature								x							
			check delivery pressure and temperature								x							
			check the oil level in the compressor								x							
			check that there are no gas bubbles in the liquid line								x							
			check that the fins of the external coil are clean (if any)									x						
			check the operation of the oil heaters									x						
			check the remote control switches									x						
			check the operation of the LP pressure switch														x	Beginning of season
			check the operation of the HP pressure switch														x	Beginning of season
			check the insulation of the heat exchanger														x	Beginning of season
			check that terminals are tightened														x	Beginning of season
			check that the terminals' screws are tightened														x	Beginning of season
			clean the exterior of the unit with water and soap														x	Beginning of season
			check the density of the antifreeze (if any)														x	Beginning and end of season
			check the operation of the flow switches														x	Beginning of season
			check the operation of the solenoid valve														x	Beginning and end of season

Sand Trap Maintenance

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval										notes		
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other			
	Aerzen	Delta Blower 5	retaining screws and fittings, retighten after machine has					3											
			starting strainer, if installed, check, if no more contaminant it can be removed					500											
			intake filter, check filter for contamination, replace if necessary, max. -45 bar								x								
			replace filter insert					8000								x			
			air intake/air exhaust openings, of acoustic hood, check and clean					1000											Half-yearly in clean environment -monthly in dusty environment
			check condition of V-belt, replace if necessary					25 500 4000 8000								x	x		
			pressure valve, check function					3 1000											Half-yearly in clean environment -monthly in dusty environment
			check oil level					3 25				x							
			non-return valve, check for wear and leakage					8000									x		
			main inspection/maintenance, check/replace wearing parts, overall check of machine					20000	1080										
		screw conveyor	check for oil leaks																
			check oil level																x
		paddle & scraper drives	check for oil leaks																x
			check oil level																x
bottom light material conveyor gland	check stuffing gland & top up																		

Sand Trap Maintenance

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
			check all tanks, conveyor troughs and air pipework for leaks								x						
			check the oil level in the Siemens/ Danfoss and Aerzen drive units								x						
			check Blower drive belts for wear/ damage, replace as necessary									x					
			inspect the scraper rubbers for wear and renew as necessary											x			
			inspect the paddle boards for damage and renew as necessary											x			
			check all the drive units for oil leakage at the seals, if necessary replace the seal											x			
			change the oil in the drive units												x		
	Aerzen	drive	checking, maintenance, cleaning, exchange bearings					10000	1440								exchange bearings upon request

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
8660	chp engine	oil sample for analysis								x							See Jenbacher maintenance schedule
8660	chp engine	oil change									#						# Period dependent on Oil Analysis results see maintenance schedule

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval									notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
General maintenance rem		overall unit	visual controls and the observance of the maintenance schedule are required for operational readiness and operating safety of the plant. Attention should be paid to wear, corrosion and mechanical damage during visual control. Settings should correspond to the original adjustment. All maintenance work prescribed in the maintenance schedule and in the description of components are to be carried out acc. to the instructions and stipulated intervals. Check														
4410AV05		Mototrized valve with position indicator	clean or replace strainer. Close manual valve. -> lower housing cover is highly prestressed, 1 = unscrew all scrwes on lower housing uniformly 2 = remove the lower housing cover, check O-rings. Replace if orn, hardened or swollen 3 = Pull out strainer, clean or replace. For biologically produced methane check springs for corrosion, replace lower housing cover if necessary Check valve disc for damage reasemble parts. Check airtightness - soap off joint between cover and housing														Reference to ba_vk_04.08.pdf
4410F005		Demister Demister insert															

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other	
			check the condition and security of piping connections												x			
			check the condition and security of electrical connections												x			
			using a spanner, check that the connections between the compressor inlet and outlet pipelines have not slackened												x			
			check that the ambient air temperature is within the unit capacities. Check that the environment is well ventilated							x								
			check that fan is automatically switched on. Thoroughly clean the fins of the condenser with soft brush and / or jet clean compressed air. Check that the grilles of the unit are free from dirt and any other obstructions												x			
			clean condenser fins with a mild detergent													x		
4410P50 4410PM50		Compressor including expansion joints and relating drive	fire dampers/ Shut-off-damper fulfill a very important function and must therefore be maintained continuously and inspected. The bearings are made of stainlesssteel shaft (DIN 1.4571) which turns in a bush made of the same material with a loose fit. Lubrication is not required												x			Reference to OM Manual Meidinger_e_Rev V

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval									notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
			an operational check must be undertaken every 6 months whereby the triggering mechanism is activated many times one after another and the quick smooth closure is checked											x			
			the bearings are to be inspected and cleaned if dirt or crusts with salt was observed due to effect of sea water, for e.g. by washing out or with compressed air													x	
			during painting, care has to be taken that the paint does not adversely affect the movement of the flaps and the control devices. All components must be inspected for their efficiency after a fire. It must be checked whether delays can adversely affect the density or the smooth movement. The functioning of triggering device is to be carefully inspected													x	
			fire dampers/ shut-off-dampers with manual activation											x			

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval									notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
			the smooth movement of flap and the handle for arresting the hand lever are to be inspected. The manual operation can be provided exclusively or in addition to the automatic triggering. Additional hand operation has a hand lever with tappet profile which allows closure which is independent of the automatic triggering														
			fire dampers / shut-off-dampers with fusible link										x				
			the fusible link melts and the fire damper is closed due to spring force when achieving the triggering temperature. The plunger pin releases the catch on the adjusting element, the damper blade falls in the closing direction and is locked by the locking pin in the													x	

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other					
4410P60 4410PM50		Compressor including drive	fire dampers/ Shut-off-damper fulfill a very important function and must therefore be maintained continuously and inspected. The bearings are made of stainlesssteel shaft (DIN 1.4571) which turns in a bush made of the same material with a loose fit. Lubrication is not required												x			Reference to OM Manual Meidinger_e_Rev V				
			an operational check must be undertaken every 6 months whereby the triggering mechanism is activated many times one after another and the quick smooth closure is checked														x					
			the bearings are to be inspected and cleaned if dirt or crusts with salt was observed due to effect of sea water, for e.g. by washing out or with compressed air																	x		
			during painting, care has to be taken that the paint does not adversely affect the movement of the flaps and the control devices. All components must be inspected for their efficiency after a fire. It must be checked whether delays can adversely affect the density or the smooth movement. The functioning of triggering device is to be carefully inspected																		x	
			fire dampers/ shut-off-dampers with manual activation														x					

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval										notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other		
			fire dampers/ battery doors with electrical opening												x			
			check whether the spring which is in-built in the servo-motor closes the flap in case of voltage loss. This can take place by: 1. The temperature in the duct reaches the pre-set temperature. 2. Switching off power supply. 3. Fault in power supply															x
4510AV10		solenoid valve VAS 120	in order to ensure smooth operation: check the tightness and function of the VAS every year, or every six months if operated with biologically produced methane. Disconnect the system from the electrical power supply. Shut off the gas supply. Cleaning the strainer If the flow rate is ok, see checking tightness and function. If the flow rate has dropped, clean the strainer. Checking Tightness and function. Checking Tightness and function in order to determine wheter the VAS ist tight and closes secureely, check the internal and external tightness. Check electrical															Reference to ba_vk_04.08.pdf

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other	
4510AV05 4410VM05		mototrized valve actuator	clean or replace strainer. close manual valve. -> lower housing cover is highly prestressed, 1 = unscrew all scrwes on lower housing uniformly 2 = remove the lower housing cover, check O-rings. Replace if orn, hardened or swollen 3 = Pull out strainer, clean or replace. For biologically produced methane check springs for corrosion, replace lower housing cover if necessary check valve disc for damage reasemble parts. Check air-tightness - soap off joint between cover and housing.															Reference to ba_vk_04.08.pdf

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval									notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
4410X210 4410XM2 10 4410X220 4410XM2 20		fan machinery room motor for fan	<p>before starting maintenance work, the fan must be completely separated from mains to prevent danger caused by live and rotating parts. Secure the fan against accidental restarting. This is the case especially if the switch for the fan is attached at a distance from the fan, e.g. in the case of roof fan DZD.</p> <ul style="list-style-type: none"> • Cleaning: The device must be checked regularly for soiling and cleaned, if necessary, especially after a long standstill. The terminal box may be cleaned using only a damp cloth. <p>The fan and its components must be checked regularly. Here, pay special attention to</p> <ul style="list-style-type: none"> – free flow in the air channel – the effectiveness of the protective screens – maintenance of the permitted temperatures – the quietness of running of the ball bearings – secure attachment of the cables in the terminal box – possible damage to the terminal box, cable glands, 														Reference to DZQ_25_4_B_E_E x_e_Axial-Wandventilator_v on_MAICO_Ventilatoren_IM0001423
		control-room air conditioner			x											x	Control light indicates need

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
4710MQ001		transmitter CH4	we recommend to keep EN 50073 and national regulations (or German BG Chemie-Information BGI 518) Test Gas (Zero Point) : Ambient air (free from measured gas) or synthetic air Test Gas (Sensitivity) : Concentration in the middle of measuring range or slightly above highest alarm level 0.4 to 0.8 Vol.-% propane in air (adjustment to be clarified with ExTox) Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum.														Reference to 251004_ExSens_BG-HL_e
4710MQ002		transmitter O2	we recommend to keep EN 50073 and national regulations (or German BG Chemie-Information BGI 518) as well as EN 45544-4 and national regulations (or German BG Chemie-Information BGI 836) Test Gas (Zero Point) : Nitrogen Test Gas (Sensitivity) : Ambient air (20.9 % (v/v) oxygen) Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum 60s														Reference to 211218_Sens_O2-25-KE_e

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other	
4710MQ003		transmitter H2S	we recommend to keep EN 45544-4 and national regulations (or German BG Chemie-Information BGI 836) Test Gas (Zero Point) : Ambient air (free from measured gas) or synthetic air Test Gas (Sensitivity) : Hydrogen Sulphide, Concentration in the middle of measuring range or slightly above highest alarm level Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum 120 s												x			Reference to 211224_Sens_H2S-3000-EC_e
4710MQ004		transmitter CO2	regularly according to regulations to be applied, otherwise adapted to the environmental conditions. We recommend to keep EN 45544-4 and national regulations (or German BG Chemie-Information BGI 836). Test Gas (Zero Point): Nitrogen, synthetic air Test Gas (Sensitivity): Carbon Dioxide, Concentration in the middle of measuring range or slightly above highest alarm level Test Gas Application: 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum 90s													x		Reference to BA_Transmitter_ExSens_-l__Sens_-l__e

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
4410MQ05 4410MQ10		gaswarning transmitter ExTox	the sensor elements of gas detection systems are unfortunately subject to ageing and consumption which depend very much on the environmental operating conditions. By the way, this is the reason for excluding the sensor elements from warranty. Each transmitter is adjusted by ExTox before being supplied. The results of this test are recorded on the transmitter test certificate which is attached to each delivery. Maintenance done by specialists is an indispensable measure for checking and keeping the functionality of gas detection systems. Maintenance comprises inspection, calibration and adjustment as well as functional test of the complete gas detection system. ExTox recommends for all of her supplied transmitters maintenance including calibration and adjustment with test gas minimum once a year. Please pay attention to the details on the Data Sheets. Furthermore national valid														Reference to BA_Transmitter_ExSens_-l__Sens_-l_e

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other
4710MQ05		gas Analysis	<p>the following descriptions are generally valid for Gas Detection Systems of the company ExTox GmbH consisting of the herein described control units and connected transmitters. Maintenance done by specialists is an indispensable measure for checking and keeping the functionality of gas detection systems. Maintenance comprises inspection, calibration and adjustment as well as functional test of the complete system. Most important is the testing of the connected transmitters. Control of the gas detection system and its correct functionality are also checked. ExTox recommends for all of her supplied transmitters regular calibration and adjustment with test gas. Please see also the details in the corresponding Technical Data Sheets. An extension to 12 months might eventually be possible in case of existing experiences on similar applications. The</p>														Reference to BA_ET-8D_ET-4D2_e

MTP Maintenance

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other			
0100F01		Drive	keep cooling surface and air slit clean	x				40			x								
			maintenance as instructions of the manufacturer	x				40			x								follow the manufacturers' instructions
		Self-blocking coupling	check it's conditions	x				160				x							
			maintenance as instructions of the manufacturer	x													x		follow the manufacturers' instructions
		EP-band	check it's condition, replace in case of wear or damage	x				40			x								
		Carrying wheels	keep clean	x				160				x							
			check it's condition, replace in case of wear or damage	x				160				x							
		Guide wheel	keep clean	x				160				x							
			check it's condition, replace in case of wear or damage	x				160				x							
			lubricate	x				160				x							
		Springs	check it's condition, replace in case of wear or damage	x				160				x							
		Bearings	check it's condition, replace in case of wear or damage	x				160				x							
			check the mobility	x				40				x							
			check screw tightness	x				160				x							
		Safety devices	check function	x					x										
			keep clean	x				40				x							
			check condition of safety signs and lables	x				160				x							
		Electrical elements	check it's condition, replace in case of wear or damage	x					x										
			keep clean					40				x							
		Frameworks	keep clean	x					x										
clean surface	x					160				x							follow the manufacturers' instructions		
check screw tightness	x					480						x							

MTP Maintenance

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other			
0100H01			check all element fixing systems	x				480						x					
			check for damage and/or cracks	x				480						x					
		Drive	keep cooling surface and air slit clean	x					40			x							
			maintenance as instructions of the manufacturer	x					40			x							follow the manufacturers' instructions
		Chains	check for wear	x					160				x						
			check chain and chain tension	x					160				x						
			lubricate chain with "IWIS VP 6"	x					160				x						
		Chainwheels	check for wear	x					960							x			
		Chain guidance	check for wear	x					160				x						
		Belt	look out for damage to the belt	x						x									
			check belt tension	x					160				x						
		Bearings	lubricate with lub gun	x					320					x					
		Frameworks	check bolted connections	x					480						x				
		Tension spindles	check bolts	x					160				x						
			clean and lubricate threaded spindle	x					480						x				
		Oiler	refill oil container with STRUCTOVIS FHD each 100Bh	x						x									
			check lubrication interval	x						x									
check brush for wear	x						40			x									
Carrier	check for a solid fit	x					160				x								
	check for wear	x					160				x								
0100H02		Drive	keep cooling surface and air slit clean	x				40			x								
			maintenance as instructions of the manufacturer	x				40			x						follow the manufacturers' instructions		

MTP Maintenance

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other			
0100H04		Belt	look out for damage to the belt	x			x												
			if belt runs out line countersteer by means of reverse rollers, steering unit or drum	x			x												
			check belt tension	x				160			x								
		reversing castors, support rollers, lower belt rollers	remove material caking	x			x												
			check bolts	x				480					x						
			check free movement	x				160				x							
		Bearings	lubricate with lub gun	x				320					x						
		Frameworks	check bolted connections	x				480						x					
		Tension station, Tail pulley	remove material caking from drum / remove material caking	x					40			x							
			check bolts	x					480						x				
			relubricate bearings	x					320					x					
			clean and lubricate threaded spindle	x					480						x				
			clean and lubricate threaded spindle	x					160				x						
		Drive drum	remove material caking and foreign objects	x					40			x							
			check bolts	x					480							x			
			relubricate bearings	x					320					x					
			check wear of the friction lining	x					480							x			
		Scraper	check for wear	x					160				x						
		Side strip rubber	check for wear	x					40			x							
			clean when dirtied	x															
Under belt cover	clean when dirtied	x																	
	renew damaged tarpaulin	x						160											
0100H04		Drive	keep cooling surface and air slit clean	x				40			x								

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			maintenance as instructions of the manufacturer	x				40			x							follow the manufacturers' instructions	
		Belt	look out for damage to the belt	x			x												
			if belt runs out line countersteer by means of reverse rollers, steering unit or drum	x			x												
			check belt tension	x					160			x							
		reversing castors, support rollers, lower belt rollers	remove material caking	x			x												
			check bolts	x					480					x					
			check free movement	x					160			x							
		Bearings	lubricate with lub gun	x				320					x						
		Frameworks	check bolted connections	x				480						x					
		Tension station, Tail pulley	remove material caking from drum	x				40			x								
			check bolts	x					480						x				
			relubricate bearings	x					320					x					
			clean and lubricate threaded spindle	x					480							x			
			clean and lubricate threaded spindle	x					160				x						
		Drive drum	remove material caking and foreign objects	x				40			x								
			check bolts	x					480							x			
			relubricate bearings	x					320					x					
			check wear of the friction lining	x					480								x		
		Scraper	check for wear	x				160				x							
		Side strip rubber	check for wear	x				40			x								
			clean when dirtied	x															
		Under belt cover	clean when dirtied	x					X										
			renew damaged tarpaulin	x					160				X						

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other			
	Flottweg	drive	check belt tension and tighten if necessary			x					1							weekly during 1st month	
		housing	check housing inside and outside for deposits and clean if necessary			x		1000											
		entire unit	check for irregular vibration/ noise						1										
		grease lubrication	apply grease pump 2 times						1										
		housing	check hazard areas, covers and protection against contact: refurbish if necessary						1										
		grease lubrication	check lines for lubrication for damage									x							
		housing	check housing for tightness									x							
		compensators	check for leakage									x							
		control cabinet	check cabling for power and control for damage									x							
		drive	check belt tension and tighten if necessary										x						
		grease lubrication	check level in the grease reservoir and re-fill if necessary												x				
		gear box	check gear box for tightness and arrange refurbish if necessary													x			
		rotor	check wear protection at solids discharge for wear and exchange if necessary														x		
		grease lubrication	discharge grease collector														x		
		housing	check housing inside and outside for deposits and clean if necessary															x	
		control cabinet	check function, lamp test, emergency-stop device and refurbish if necessary																x
	control cabinet	check function of air condition / aeration, clean and refurbish if necessary																x	
	drive	check elastic elements for deformation																x	

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other		
		drive	check rubber pads for damages and replace if necessary													x		
		drive	replace V-belts					4000								x		
		grease lubrication	check for tightness (pump and distributor)													x		
		control cabinet	check housing (inside and outside) as well as fixtures for mechanical damages, tightness, corrosion, control tension and potential equalization and refurbish if necessary													x		
additional 1 year service must be carried out by authorized Flottweg Service																		
		drive	replace rubber pads														3 years	
		compensators	replace compensators														3 years	
additional 3 years service must be carried out by authorized Flottweg Service																		
additional 6 years service must be carried out by authorized Flottweg Service																		

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				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other		
9408	Grundfos	Pump	visual inspection for leaks may seal replace Control of the running noise	x							x							
9408	Grundfos	Pump	visual inspection for leaks may seal replace Control of the running noise	x							x							
8130	Grundfos	Pump	visual inspection for leaks may seal replace Control of the running noise	x							x							
8130	Grundfos	Pump	visual inspection for leaks may seal replace Control of the running noise	x							x							
3112	Grundfos	Pump	visual inspection for leaks may seal replace Control of the running noise	x							x							
453	ARI- Armaturen	Strainer	clean the filter, replace if necessary	x													x	
2332	ARI- Armaturen	Strainer	clean the filter, replace if necessary	x													x	
922	WESER	Ball valve	press the handle	x										x				
6423	WESER	Ball valve	press the handle	x										x				
6425	WESER	Ball valve	press the handle	x										x				
925	TACONOVA	Deaerator	function check-out	x										x				
939	WIKA	Temperature regulator	reading compared temp display; data capture	x							x							
8183	Samson	Temperature regulator	reading compared temp display; data capture	x							x							
1075		Quick connector	press the handle	x										x				
1547		Stop valve	press the handle	x										x				
1548		Stop valve	press the handle	x										x				
1562	SYR	Water level limiter	function check-out	x													x	
1601	Reflex	Expansion vessel	visual inspection for leaks; function check-out	x													x	
		Audit compliance with the Ordiance	internal audit	x							1800							
			strength test	x							3600							
3647	Reflex	Expansion vessel	visual inspection for leaks; function check-out	x													x	
		Audit compliance with the Ordiance	internal audit	x							1800							
			strength test	x							3600							

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval										notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other		
3323	MAGRA	Hydraulic	visual inspection for leaks	x							x							
4220	ARI- Armaturen	Isolation flat	press the handle	x									x					
4979	ARI- Armaturen	Isolation flat	press the handle	x									x					
9776	ARI- Armaturen	No-return valve	press the handle	x												x		
8021	ARI- Armaturen	No-return valve	press the handle	x												x		
9872	ARI- Armaturen	No-return valve	press the handle	x												x		
4400	Afriso	Gas detector	casing clean sensors	x										x				
9482	ARI- Armaturen	Safety valve	function check-out	x									x					
11304	SUKU	Manometer valve	press the handle	x									x					
16120	Samson	Electric control valve	function check-out	x									x					
16147	Weishaupt	Gas burner Service of ther boiler and burner leads only by the trained professional. Offence leads to cancellation of coverage.	control of exhaust temperature Control of the electronic unit and the mixing device Cleaning of the fan wheel Ignition clean, replace if necessary Ionization clean, replace if necessary Gas filter check, replace if necessary	x													x	
16323	Viessmann	Boiler Service of ther boiler and burner leads only by the trained professional. Offence leads to cancellation of coverage.	cleaning, function testing	x													x	

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval									notes		
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly		other	
	Svend Hoyer	rotor motor	visual inspection running noise inspection	x							x							
			grease lubrication	x				3000										
	Lohse	discharge slide valve	visual inspection about inspection gasket	x				500			x							
	Lohse	deflector angle	visual inspection wear and fastening	x											x			
	Lohse	ripper teeth	visual inspection wear and fastening	x							x							
	Lohse	ceramic lining on the conical base	visual inspection wear and fastening	x								x						
	Perma	automaticall	inspection function	x							x							
	Lohse	rotor bearing	gasket tighten	x											x			
	Stennei	v-belt	v-belt tension inspection and tightening	x				500										

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval										notes
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other	
1001	Siemens Loher	motor	check for unusual noises	x			x										Instructed person
			general overhaul	x					20000	1080							
			check terminal locations, terminals and ventilating passages	x											Varying (depending on external)		
1005	SEW Eurodrive	gear	check for unusual noises	x			x										instructed personal
			check for leaks	x			x										
			check the housing temperature: max. 100°C	x			x										
			check the oil level	x							x						
			check the oil consistency	x					3000								
			check whether retaining screws are tightly secured / Check the condition of the oil cooling system / Clean oil filter / Check the breather valve / Check all rubber hoses for their condition and any leaks / Check all screws fittings and pipes for any leaks	x											x		
clean the gear housing surface / Touch up or renew the surfaces / anticorrosion coating	x												Varying (depending on external)				
		stirred product	check viscosity	x	x		x										
3021		rubber seal between container and agitator	check fastening torque	x							x						instructed personal
		agitator	check for signs of wear	x				20000	1080								specialist personal
			visual inspection for corrosion effects	x				20000	1080								instructed personal
		welding seams in contact with product	check for surface cracks	x				20000	1080								specialist personal

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval										notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other		
		Impellers, agitator shaft	clean, if bad runing performance was not noted before.	x				20000	1080									instructed personal
		screw connections	check firm attachment	x				20000	1080									instructed personal
		roller bearing	replace	x				20000	1080									specialist personal
		potential equilibration	control Immediately replace when damaged	x				20000	1080									electrician
4026		water cup and supply pipes	adapt to the wheater, prevent freezing	x			x											specialist personal
		stirred product	check viscosity	x	x		x											instructed personal
8001	VEGA	conductive electrode, Signal conditioning instrument	check function	x	x			1500								x		electrician

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval										notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other		
	Weber	servicewater 1: tank	visual check (leakage) of tank and pipes	x							x							
	IER	servicewater 1: overflow sensor	functional test	x											x			
	WIKA	servicewater 1: level measurement	functional test	x											x			
	Weber	servicewater 2: tank	visual check (leakage) of tank and pipes	x							x							
	IER	servicewater 2: overflow sensor	functional test	x											x			
	Weber	storage tank ammonium sulfate: tank	visual check (leakage) of tank and pipes	x							x							
	IER	storage tank ammonium sulfate: overflow sensor	functional test	x											x			
	IER	storage tank ammonium sulfate: leakage sensor	functional test	x											x			
	E + H	storage tank ammonium sulfate: level measurement	functional test	x												x		
	Weber	storage tank - FeCl-III: tank	visual check (leakage) of tank and pipes	x							x							
	IER	storage tank - FeCl-III: overflow sensor	functional test	x											x			
	IER	storage tank - FeCl-III: leakage sensor	functional test	x											x			
	E + H	storage tank - FeCl-III: level measurement	functional test	x												x		
	Weber	dosage cabinet - FeCl-III: piping	visual check (leakage) of valves and pipes	x							x							
	SERA	dosage cabinet - FeCl-III: dosing pump R410.2	visual check (leakage) of valves and pipes	x							x							
	SERA	dosage cabinet - FeCl-III: pulsation damper	visual check (leakage)	x							x							
			pressure test with water	x														720

Position No.	Producer	Component	work to be performed	Place of maintenance		Maintenance after commissioning	Maintenance Interval										notes	
				field work	control room		every shift	after x operating hours	after x days	weekly	monthly	every 2 month	quarterly	half a year	yearly	other		
	IER	dosage cabinet - FeCl-III: leakage sensor	functional test	x											x			
	Weber	centrate tank: tank	visual check (leakage) of tank and pipes	x						x								
	IER	centrate tank: overflow sensor	functional test	x											x			
	E + H	centrate tank: level measurement	functional test	x												x		
	Weber	tank - defoamer oil: tank	visual check (leakage) of tank and pipes	x						x								
	IER	tank - defoamer oil: overflow sensor	functional test	x											x			
	WIKA	tank - defoamer oil: level measurement	functional test	x												x		
	Turbo Mixer	tank - defoamer oil: agitator	visual check	x							10000	720						
	Weber	dosage cabinet - defoamer oil: piping	visual check (leakage) of valves and pipes	x						x								
	SERA	dosage cabinet - defoamer oil: dosing pump R409	visual check (leakage) of valves and pipes	x						x								
	SERA	dosage cabinet - defoamer oil: pulsation	visual check (leakage)	x						x								
			pressure test with water	x							720							
	IER	dosage cabinet - defoamer oil: leakage sensor	functional test	x											x			