## 1 MAINTENANCE



Correct maintenance prevents problems, assures efficiency and keeps running costs low.

Maintenance operations described herein may exclusively be performed by the TAC or skilled maintenance technician.

Any operation on the internal components of the GAHP/ GA/AY modules that make up the Link may only be performed by the TAC.

The efficiency checks and every other "check and maintenance operation" (Paragraph 2 p. 1 and 3 p. 1)

## 2 PRE-EMPTIVE MAINTENANCE

must be performed with a frequency according to current regulations or, if more restrictive, according to the provisions set forth by the manufacturer, installer or TAC.



<u>Responsibility</u> for efficiency checks, to be carried out for the aims of restricting energy consumption, <u>lies with the system manager</u>.



#### Environmental or operational heavy conditions

In environmental or operational conditions particularly heavy (for example: heavy-duty use of the appliance, salty environment, etc.), maintenance and cleaning operations must be more frequent.

For pre-emptive maintenance, comply with the recommendations in Table 2.1 *p. 1*.

		GAHP A	GAHP GS/WS	GA ACF	GAHP-AR
Guidelines for the p	preventive maintenance operations				
Check of the unit	visually check of the general condition of the unit and of its finned coil	√ (1)	-	√ (1)	√(1)
	check the correct operation of the device used for monitoring the water flow $% \left( {{{\rm{D}}_{{\rm{D}}}}_{{\rm{D}}}} \right)$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	check the % value of CO <sub>2</sub>			-	-
	check gas pressure to the burners	-	-		
	check that the condensate drain is clean (If necessary, frequency of the maintenace operation must be increased)			-	-
	replace the belts after 6 years or 12000 hours of operation				
	check/restore the pressure of the primary hydronic circuit	-	-	-	-
	check/restore the air pressure inside of the expansion vessel of the primary hydronic circuit	-	-	-	-
	replace the oil pump motor condenser every 3 years or every 10000 operating hours or whenever the condenser capacity is less than 95% of the nominal value				$\checkmark$
Check for every DDC or CCI	check that the plant is able to achieve the setpoint temperature				
	download the event history				

(1) It is suggested to clean the finned coil once every 4 years (optimal frequency of the cleaning operation is in any case strongly affected by the installation site). Avoid excessively aggressive cleaning of the finned coil (e.g. high-pressure washer).

# **3** SCHEDULED ROUTINE MAINTENANCE

#### 3.1 GAHP/GA

Table 3.1 *p. 1*, at least once every 2 years.

For scheduled routine maintenance, perform the operations in

		GAHP A	GAHP GS/WS	GA ACF	GAHP-AR				
Ordinary scheduled maintenance									
Check of the unit	clean the combustion chamber	√ (1)	√(1)		√(1)				
	clean the burner	√ (1)	√(1)		√(1)				
	clean the ignition and flame sensor electrodes								
	check that the condensate drain is clean	$\checkmark$		-	-				

(1) Only in case the analysis of combustion products is non-compliant.

#### 3.2 AY

It is recommended that the following operations and checks be carried out each year:

- Combustion circuit functionality and heat exchange control:
  Burner and flue exhaust duct inspection
- Cleaning of burner and water/flue exchanger (if applicable)
- Flame ignition/detection system control
- Hydraulic circuit and internal components functionality check:
  - Hydraulic circuit control (pipes, gaskets)

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- Expansion tankControl and safety devices
- Water temperature probes
- Periodic analysis of combustion, in accordance with regula-tions in force