



RQ-177: COMMISSIONING ECOSS

Evaporative Condenser ECOSS

LOWER MODULE

Items checked	OK	NOK	N/A	Risks
1 Feedwater system connection BT_003/004				Lack of water / water accumulated around the unit / increased scale
2 Drain system connection BT_003/004				Lack of water / water accumulated around the unit / increased scale
3 Overflow pipe connection BT_003/004				Lack of water / water accumulated around the unit / increased scale
4 Bleed system connection BT_003/004				Lack of water / water accumulated around the unit / increased scale
5 Float valve / tray water level BT_010				Lack of water / water pump cavitation and consequent rotor damage and increased scale
6 Adjustment of bleed rate BT_003 / BT_018				Increased salt concentration in tray water, and consequent increased scale and higher risk of coil damage
7 Direction of rotation of the water pump (clockwise) and electric current value				Low flow of water recirculation and consequent increased scale / constant tripping of the circuit breakers
8 Position and clogging of the filter at the water pump suction				Damage of the water pump by foreign objects / low flow of water recirculation / clogging of spray nozzles by foreign objects
9 Water distribution system ("V" shape) BT_010				Inefficient water distribution system resulting in increased scale
10 Opening of the air inlet screens and inspection of the tray				Damage of profiles may generate accumulation of water around the unit / non-cleaning of the tray generates increased concentration of salts and consequent increased scale
11 Water leak at the casing BT_001				More water consumption of the equipment / accumulation of water around the unit / surface contamination
12 Casing cleaning and passivation BT_001				Surface contamination from the installation
13 Analytical parameters of makeup water (report) BT_004 / BT_006 / BT_023				Makeup water out of the recommended limits may cause increased scale and increased risk of coil damage, in this case it must be constantly treated and bled



RQ-177: COMMISSIONING ECOSS

Evaporative Condenser ECOSS

LOWER MODULE

Items checked	OK	NOK	N/A	Risks
14 Chemical treatment of water (content) BT_004 / BT_006 / BT_022				The chemicals must be free of chloride or any other compounds that attack stainless steel and aluminum, otherwise there will be a chemical attack to the coil, casing, water pump and fans.
15 Grounding and power cables BT_019				Damage to electric and electronic components. Measured resistance (ohms) of the grounding:
16 Voltage variation BT_020				Damage to electric and electronic components
17 Fans with minimum rotation of 10% BT_021				Electronic water condensation
18 Conductivity meter in operation and sealed BT_018				With no bleed, there might be the concentration of salts in the tray. Incorrect closing of the display may cause water infiltration
19 Protection of the solenoid valve of the automatic bleed system BT_018				Non-protection of the solenoid valve may damage its electronic system



RQ-177: COMMISSIONING ECOSS

Evaporative Condenser ECOSS

UPPER MODULE

Items checked	OK	NOK	N/A	Risks
20 Base de Groundwork				The groundwork must be level to avoid damage when assembling the modules.
21 Power outlet of the Plug-and-Play system				The incorrect connection may cause flaws in the ventilation system or in the control system
22 Fans in operation BT_005 / BT_015 / BT_016				Lack of efficiency
23 Opening of the fans for access to the water distribution system BT_011				Lack of cleaning and maintenance / clogging of the spray nozzles and consequent inc to the coil
24 Drip eliminator (quantity and position) BT_011				Drag of water through the fans / increased scale at the fans / loss of efficiency due to the increased loss of air load and unbalance of the fan
25 Spray nozzles (position and clogging) BT_002				Loose water spray nozzles result in an inefficient water distribution system causing increased scale and increased risk of damage to the coil
26 Mechanical connection of the refrigerant: - Connections according to equipment manual BT_21				The mechanical connection out of the manual specifications may generate loss of performance and low efficiency of the equipment through coil drowning
27 Connection of the headers free of strain BT_023				A pipe rack must be used to withstand the piping weight, as str headers may cause cor another factor
28 Mechanical connection of the equalizer BT_021				The lack of an equalizer generates the d coil or the drowning of parallel equipment
29 Control sensor (pressure / temperature) BT_007				Lack of process control power consumption
30 BT_008				rcase and guardrail No access to the upper module for checking and maintenance / risk of fall and safety during maintenance / risk of damage to stairs and guardrail and to the equipment itself



RQ-177: COMMISSIONING ECOSS

Evaporative Condenser ECOSS

COOLING SYSTEM (record with photos)

Items checked	OK	NOK	N/A	Comments
31 Pressure of discharge at the system before the operation of ECOSS G3 BT_009				Important to evaluate the equipment efficiency
32 Pressure of discharge at the system after the operation of ECOSS G3 BT_009				Important to evaluate the equipment efficiency

GENERAL NOTES / COMPLAINTS / IMPROVEMENT OPPORTUNITIES

Materials Delivered
Equipment Manual
Folder of bulletins
Link with updated documents:
<https://guentner.teambeam.de/my/drive/folder/43545>

Client:
Function: