

## ELECTRIC CONDENSATE RECOVERY UNITS ECRU

### DESCRIPTION

The ADCAMAT ECRU series electric condensate recovery units are recommended in the transfer of high-temperature water such as hot condensate, to a higher elevation or pressure. This condensate is usually used as boiler feed water. The standard models are prepared for flows up to 20 m<sup>3</sup>/h, or higher on request.

The units are composed by a condensate vessel (receiver), a metallic support frame, electric pumps, level controls, valves, prewired control panel and pipework's for connections between the different elements of the units.



### OPERATION

The condensate is brought into the vessel through the inlet connections, with stainless steel sparge pipes, located on the top of the vessel. As the condensate level rises it will trigger the level control system to start the pumping process. In normal operating conditions, the pumps will work in alternating mode, which means they will alternate duty at the end of each cycle. In the event of a peak load, the level will continue rising eventually triggering the cascading switch which will make both pumps work simultaneously to relieve this peak demand.

### MAIN FEATURES

**Condensate vessel** – Completely manufactured from AISI 316 stainless steel or carbon steel, with inlet connections, overflow, air vents, drain, pump feeding outlets and a magnetic level indicator with bi-stable switches.

**Valves and ancillaries** – Includes full bore ball valves at the pump suction ports, manual regulating valves for system head regulation at the pumps discharge, seamless carbon steel pipes, strainers and pressure gauges.

**Metal frame** – Manufactured from structural steel, sandblasted and painted.

**Pumps** – Manufactured from stainless steel or cast iron, capable of handling hot condensate up to 98 °C and designed for low NPSH.

**Control panel** – Metal enclosure rated to IP65 or higher. Features alternating and cascading (simultaneity) functions, pump fault indication for each pump, low and high-level alarms, pump dry run inhibitor, operating mode selector switch and volt-free telemetry terminals for remote stats. The unit requires a 3 phase, 380-415 VAC, 50Hz power supply.

**OPTIONS:**

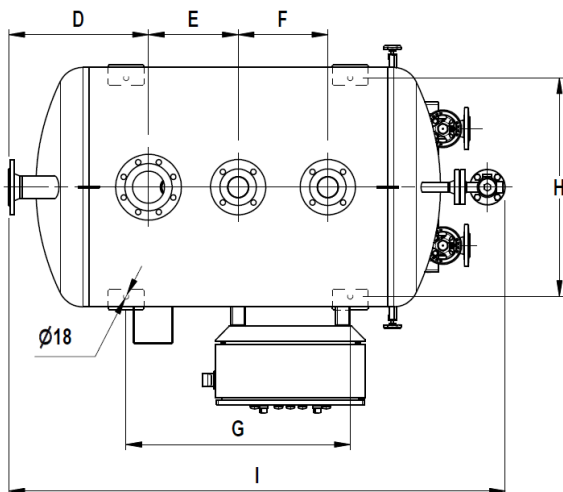
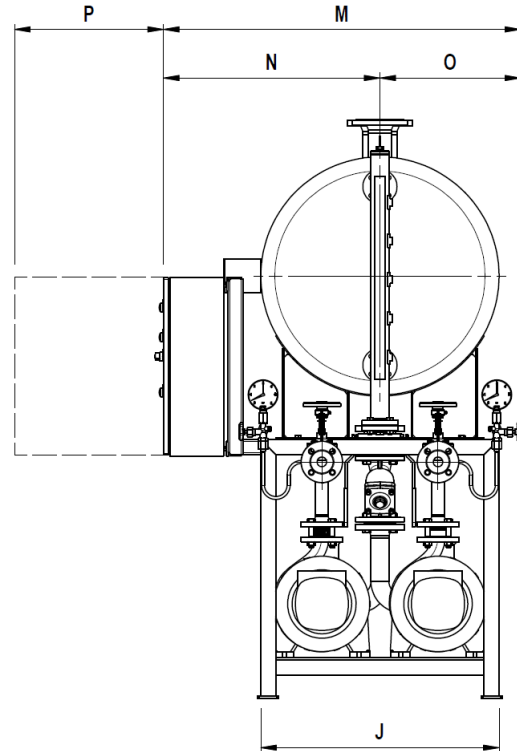
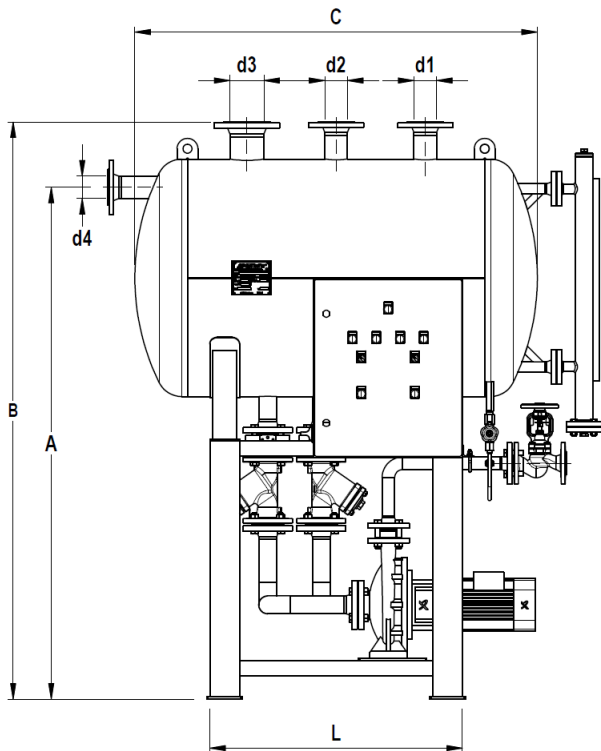
- Thermal insulation.
- Frame in stainless steel.
- Complete pipelines in stainless steel.
- Different pumping capacities.
- Alternative designs.

## CERTIFICATION

The ADCAMAT ECRU is designed to operate exclusively at atmospheric pressure and therefore is outside the scope of the European Pressure Equipment Directive. It complies with the European Machinery Directive and therefore carries the CE mark.

When supplied with an integrated control panel the compliance with the Low Voltage Directive and the Electromagnetic Compatibility Devices Directive is also ensured.

A declaration of conformity is delivered with the equipment according with the relevant Directives in use.

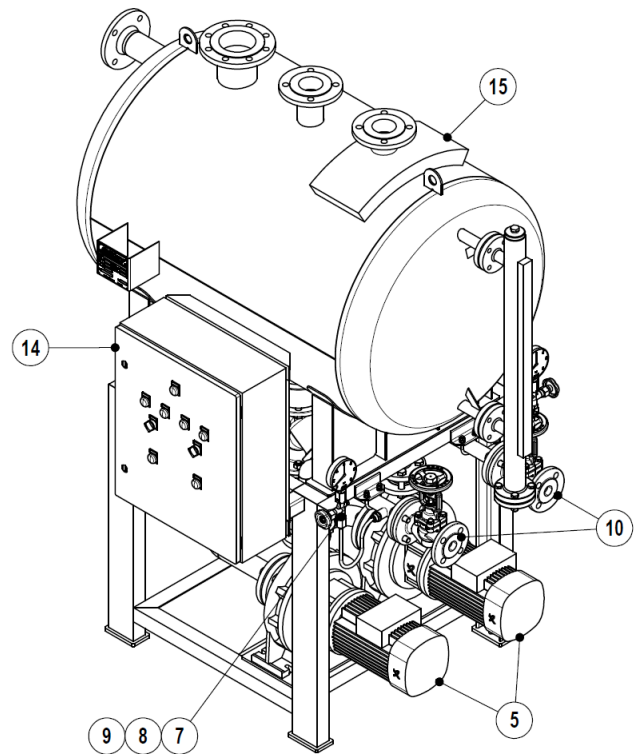
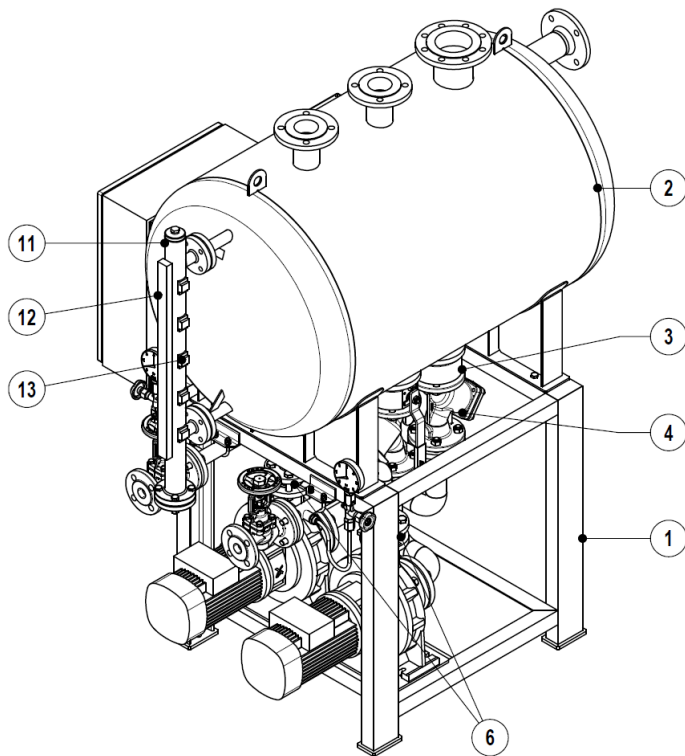
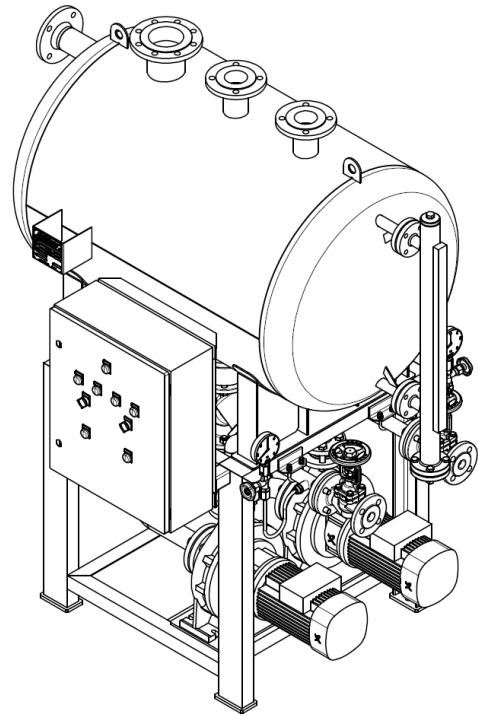


CONNECTIONS SIZE				
Model	d1	d2	d3	d4
EC255	DN50	DN50	DN80	DN50
EC600	DN65	DN65	DN100	DN65
EC850	DN100	DN100	DN100	DN100

DIMENSIONS (mm)															
Model	A	B	C	D	E	F	G	H	I	J	L	M	N	O	P
EC255	1450	1645	1236	423	300	300	680	430	1577,5	500	780	827	577	250	500
EC600	1725	1945	1354	467	300	300	750	730	1660,5	800	850	1200	727	473	500
EC850	1700	1945	1854	617	400	400	1000	730	2160,5	800	110	1200	727	473	500

MATERIALS		
POS. Nº	DESIGNATION	MATERIAL*
1	Metal frame	S235JR / 1.0038 AISI304 / 1.4301
2	Vessel	AISI 316 / 1.4401 P235GH / 1.0325
3	Ball valve	ADCA M3I / MWS1
4	Strainer	ADCA IS16F
5	Electric pump	-
6	Check valves	ADCA RD40
7	Pressure gauge	ADCA MAN100
8	Siphon	ADCA GSU
9	Gauge cock	ADCA GC400
10	Globe manual reg. valve	ADCA VF20
11	Magnetic level indicator	ADCA MLI
12	Indicator	ADCA MLI
13	Level switch	ADCA MS
14	Control panel	-
15	Thermal insulation	Rock-wool / Aluminium

\* References shown are indicative and can be changed without notice.



ORDERING CODES ECRU										
Model	EC	225	S	S	2T10	S	S	X	X	E
ECRU Electric Condensate Recovery Unit	EC									
<b>Vessel capacity</b>										
225 liters		225								
600 liters		600								
850 liters		850								
<b>Vessel material</b>										
Carbon steel			S							
Stainless steel AISI316 / 1.4401			I							
<b>Number of electric pumps</b>										
Single pump (non standard) (3~ 380 – 415V, 50 Hz)				S						
Two pumps (3~ 380 – 415V, 50 Hz)				D						
<b>Maximum flow rate and delivery head in metres at the mentioned flow</b>										
2 m3/h at 10 metres (with 225 L vessel)					2T10					
4 m3/h at 10 metres (with 225 L vessel)					4T10					
10 m3/h at 10 metres (with 600 L vessel)					10T10					
10 m3/h at 20 metres (with 600 L vessel)					10T20					
20 m3/h at 10 metres (with 600 L vessel)					20T10					
20 m3/h at 20 metres (with 600 L vessel)					20T20					
30 m3/h at 10 metres (with 850 L vessel)					30T10					
30 m3/h at 20 metres (with 850 L vessel)					30T20					
<b>Metal frame</b>										
Fabricated carbon steel						S				
Fabricated stainless steel						I				
<b>Piping connections</b>										
Carbon steel							S			
Stainless steel							I			
<b>Control panel</b>										
Without control panel								X		
Control panel, magnetic level indicator, bi-stable switches and wiring									E	
<b>Thermal insulation</b>										
Without thermal insulation										X
Thermal insulation with aluminium external protection										T
<b>Extras</b>										
Full description or additional codes have to be added in case of non-standard combinations										E