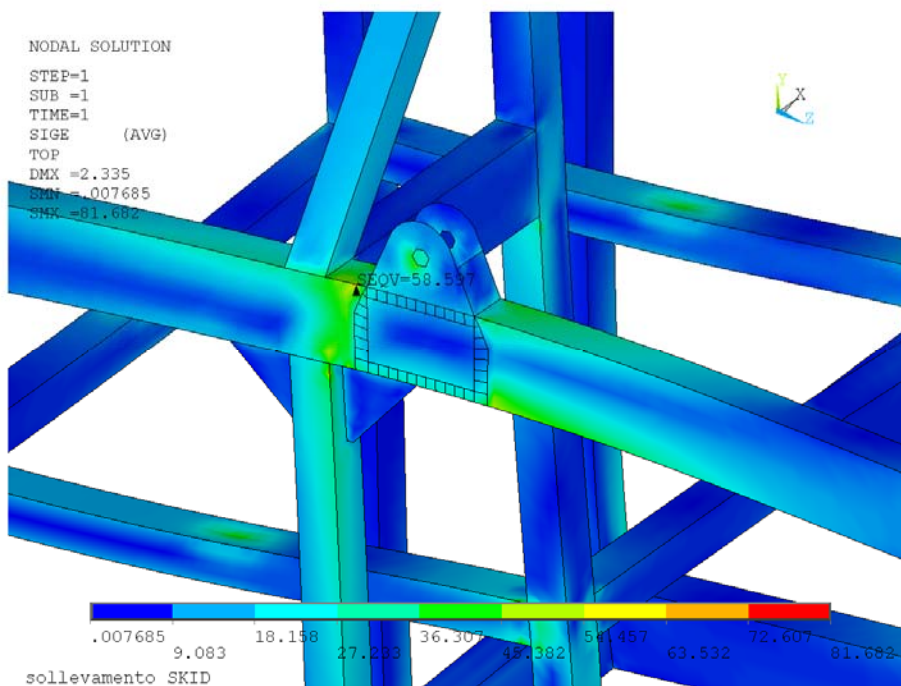


VACUUM EVAPORATORS ES SERIES



APPLICATION SECTORS:

- Galvanic
- Graphic arts
- Mechanic
- Cosmetic
- Chemical
- Petrochemical
- Pharmaceutical
- Oenological
- Dairy
- Olive oil



ACCESSORIES AND SERVICES OFFERED:

- Conductivity meter
- Installation on site
- Start-up
- Maintenance
- Fan-speed control
- Distance control
- Measurement of production



“Your Waste Water, Our Solution”

C&G Depurazione Industriale Srl has been operating since 1971 in the industrial wastewater treatment sector. The Know-how acquired from the design and construction of over 3000 plants, sold both in Italy and abroad, encourages our constant growth, research and innovation, and allows us to propose a complete and personalised service to our customers.

Countries where the C&G logo is already well known and appreciated are: Italy, France, Belgium, Spain, Holland, Slovakia, Slovenia, Poland, Turkey, Greece, Russia, Lebanon, UAE, USA, Mexico, Taiwan, China, India, Indonesia, Malaysia, Japan, Brazil and others.

C&G supplies equipment and support technologies to a wide range of production sectors, all however with a common objective: to improve the conditions of a particular liquid.

C&G offers a wide range of products, all conforming to existing guidelines of the EEC:

- VACUUM EVAPORATORS
- REVERSE OSMOSIS
- ULTRAFILTRATION
- ION EXCHANGE
- CHEMICAL–PHYSICAL TREATMENT
- WATER-SOFTENERS
- DEMINERALIZERS
- FILTERPRESS
- SPECIAL EQUIPMENT FOR GALVANIC INDUSTRY

The services offered by C&G include:

- Custom made, one-off solutions
- Analysis in our laboratory of your polluted waters
- Design, manufacture and installation
- Maintenance contracts
- On-line and on-site assistance



General Working Description

The ES series are horizontal development evaporators with an outer shell for the heat exchange, while the distillate condensation chamber is located above this.

The vacuum system guarantees minimum energy expenditure.

The distance between the free surface of the effluent being treated and the collection plate prevents drag out, and therefore guarantees a higher purity in the distillate.

Refrigerant circuit

The ES evaporator series are plants which use a heat-pump. There is a refrigerant circuit where the high pressure is used to yield heat to the wastewater and bring it to boil, and the low pressure is used to re-condense the distillate produced by removing the heat.

Vacuum circuit

The system used to create a vacuum within the boiler includes the use of a centrifuge pump and an ejector.

This extraction system guarantees a residual pressure of 33 mbar inside the evaporator.

Distillate circuit

No pump is necessary for the discharge of the distillate. The distillate leaves from an accumulation tank placed on the skid, which is kept chilled by the refrigeration circuit.

Concentrate discharge

The ES evaporator series have been designed to reach a highly compact concentrate which can arrive at a dry solution. The scope of these machines is in fact the maximum reduction of the product treated.

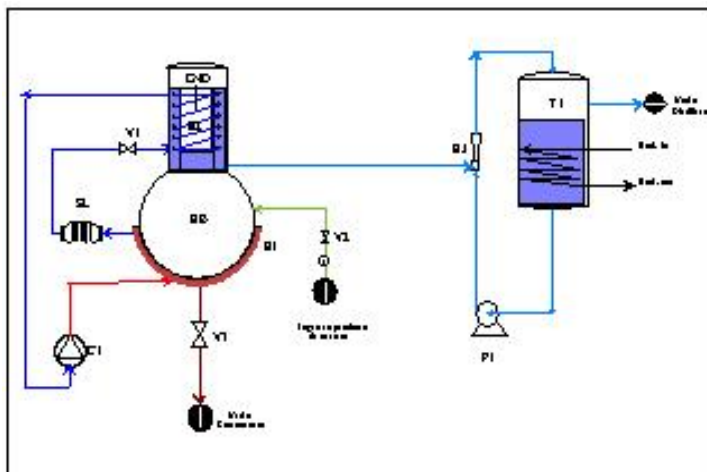
The concentrate is therefore not possible to extract using a pump and discharge is manual through the door positioned on the side of the boiling chamber.

Automation, alarms and control

C&G evaporators can work unattended and continuously 24/24 hours thanks to control through PLC.

The use of simple, logical software allows easy control and immediate set up of the working parameters.

The use of a synoptic (optional on all models) guarantees a rapid and intuitive global control of the working of the machine.



C&G ES Series

- C1 - Compressor
- SL - Subcooler
- EB - Boiling chamber
- E1 - Boiling heat-exchanger
- E2 - Condensation heat-exchanger
- EJ - Ejector
- P1 - Vacuum pump
- P2 - Recirculation/discharge pump

ES models

ES MODEL	l/h	DIMENSIONS LxDxH (mm)	CONSUMPTION (W/l)
20	0,83	600x700x1100	180-200
100	4,2	800x800x1700	180-200
250	10,4	1000x1000x2000	180-200
350	14,6	1000x1000x2000	180-200
500	20,8	1500x1300x2250	180-200
750	31,2	1700X1700X2100	180-200
1000	41,7	2000X2000X2300	180-200
All units by C & G conform to "Machinery directives" 2006/42/CE			

Component	Material
Boiling chamber ¹	Stainless Steel AISI 316L (EN 1.4435)
Condensation chamber	Stainless Steel AISI 316L (EN 1.4435)
Heat exchanger in boiling chamber	Stainless Steel AISI 304 (EN 1.4301)
Heat exchanger in condensation chamber	Stainless Steel AISI 316L (EN 1.4435)
Distillate tank	Stainless Steel AISI 316L (EN 1.4435)
Subcooler heat exchanger	Pipes in Cu / Casing in Al
Vacuum pump	Ghisa UNI 5007-69
Concentrate discharge pump	Stainless Steel AISI 316L (EN 1.4435)
Antifoam dosing pump	PP
Distillate discharge pump	Stainless Steel AISI 304 (EN 1.4301)
Skid	Stainless Steel AISI 304 (EN 1.4301)
Pipe work	Copper / PVC ²

1 – Possible to use special stainless steels

2 – Possible to use pipes in stainless steel or alternative plastic materials