



PRAGMACLEANER

ON-LINE CLEANING FOR CLOSED CIRCUITS



PRAGMACLEANER – INSTRUMENT FOR “ON-LINE” CLEANING OF CLOSED CIRCUITS

In the industry the efficiency and conservation of **closed circuits** are of fundamental importance. Despite this, the control and conditioning of the water contained in them are frequently neglected, thus favouring the onset of serious problems such as:

- corrosions;
- formation of deposits and scale;
- decline in performances;
- increased of maintenance costs;
- unexpected plant outages;
- reduction in the average life of the plants.

Pragma Chimica offers its range of integrated systems for cleaning and **reclaiming (on-line)** closed circuits for the transport of heat or cold, taking advantage of technologies designed for this purpose, revolutionary and innovative.



THE ADVANTAGES OF OUR TECHNOLOGY

	Remediation in progress (on-line)	Traditional reclamation
Plant shutdown is required	NO	YES
It is an economic treatment	YES	NO(*)
Waste disposal is necessary	NO	YES
Easy application and installation tool	YES	NO
Reduction in the consumption of chemicals	YES	NO
Risk for operators	NO	YES

(*) It should be remembered that in a remediation treatment of a closed circuit, regardless of its size, the allocation of an appropriate CER code for the disposal of the eluates must always be provided and a chemical characterization analysis of the waste must also be performed.

Others advantages about Pragmacleaner technology:

- allows the reduction of maintenance interventions.
- Allows the recovery of thermal efficiency, removing the sludge present in the circuit.
- Improves the efficiency of inhibition and passivation interventions.
- The reclamation is always a tailored solution, studied and engineered, based on the type of circuit and the quality of the heat transfer fluid.
- Suitable in particularly compromised circuits, with or without the presence of glycol.
- Adaptable on civil or industrial circuits.

OPERATING CONDITIONS FOR THE USE OF PRAGMACLEANER

The use of Pragmacleaner reclamation system cannot ignore the knowledge of the volume of the circuit to be treated so it is essential, before carrying out any reclamation operation, to know the actual volume of the same. In this regard, **Pragma Chimica** has developed an innovative one technology for the purpose, through the use of **specific tracers** that involve the determination of both the volume and any losses of the circuit itself.

After the hydraulic connection of Pragmacleaner system has been carried out, one of our specialized technicians will prepare the system, so as to allow it to function correctly according to the design criteria adopted for the cleaning and reclamation treatment of the circuit.

Pragmacleaner can be equipped with a **safety system** with differential pressure control, to activate the thrust pump lock, in case of excessive clogging of the filtering body.

TECHNICAL FEATURES

Max working temperature	80 °C
Safety pressure switch	yes – optional
Flow meter for flow control	yes (asameter as an alternative, optional)
Clean filter pressure loss	0,1 bar
Maximum working pressure	4 bar
Maximum filterable volume	from 3 to 40 m3/day
Power supply	230 VAC

OVERALL DIMENSIONS

Model	Length	Width	Height	Weight
	mm	mm	mm	kg
Pragmacleaner	855	550	1.300	80

Pragma Chimica can also supply solutions with one or more large dosing stations, already installed on the skid, usable for example on large circuits:



POST-RECLAMATION CONTROLS

At the end of the reclamation operations, to enhance and have even more under control the quality of the treatments performed, **Pragma Chimica** proposes the installation of a **specimen rack**, prepared according to the ASTM D 2688 standard. The system consists in controlling the speed of corrosion with the coupon test method for specimen weight loss.

The specimen rack is made and constructed to reproduce the actual conditions in the circuit, avoiding turbulence which would alter the results. Easy to install, it is equipped with a regulator and flow indicator.

Pragma Chimica finally, it offers continuous and diligent **technical support** in order to guarantee the optimum performance of the products used and of the slave plants over time and in different situations.

Technical assistance consists of periodically **scheduled chemical checks and analyses** (upon request) and relative reports on the situations encountered from time to time with appropriate comments, changes and/or suggestions for correct operation of the plants, as well as allowing better management technical-economic.



Verification of the corrosion speed with appropriate specimens (coupon test). Also available in stainless steel for high temperature circuits.

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