

WORKSHOP REPAIR



A UNIQUE SERVICE OF ITS KIND.



SIPSEM experts in reclosers, has personnel, facilities and specialized tools to repair any make and model of recloser.

Being a company certified as an approved supplier by the electrical testing laboratory

LAPEM CFE Centro Federal de Estudios



Excellent repair option, achieving a greater benefit to the energy distribution company, keeping its assets in optimal operating conditions, reducing:

- Service quality penalties.
- Energy supply losses.
- Expense for acquisition of new assets.

Innovative service that returns damaged restorers to operation, performing maintenance or repair in a controlled workshop environment.

- **Injection of primary voltages and currents up to 38KV and 3000A:**

By having the ability to inject primary currents and voltages, a simulation of an installation environment is performed evaluating the performance and operation of the recloser assembly. Given the precision injection capability, it is able to characterize the response of the recloser sensors.

- **Injection of voltages and secondary currents up to 500VAC or VDC and 30 A:**

This injection is used in particular for the characterization of control sensors and verification of protections.

- **Contact resistance:**

The points with high resistance in conduction parts, are a source of problems in electrical circuits, since they originate voltage drops, heat sources, power losses, etc.; this test detects those points of high resistance that can give rise to a hot spot that could cause damage to the equipment. In general, this test is used in all electrical circuits in which there are sliding pressure contact points, such circuits are found in switches, disconnectors or reclosers.





- **Insulation resistance:**

The insulation resistance measurement, is itself a potential test, therefore, it should be restricted to appropriate values depending on the rated operating voltage of the equipment to be tested and the condition of its insulation. If the test voltage is high, insulation fatigue may result. Commonly used DC test voltages are 500 to 5,000 Volts.

- **Repair and adjustment of mechanical parts:**

Being a piece of equipment that has been in service, this has been subjected to both electrical and mechanical stresses, speaking of mechanical the moving parts tend to have wear or lack of lubrication due to years of service.

- **Verification of operation times:**

Important part of a correct coordination of protections is to ensure that the equipment in all its integrity is within acceptable operating margins, **SIPSEM** has processes and tools necessary to perform this test.



- **Disparity of poles:**

An important part is to ensure that the poles in the face of an event have the same or similar action.

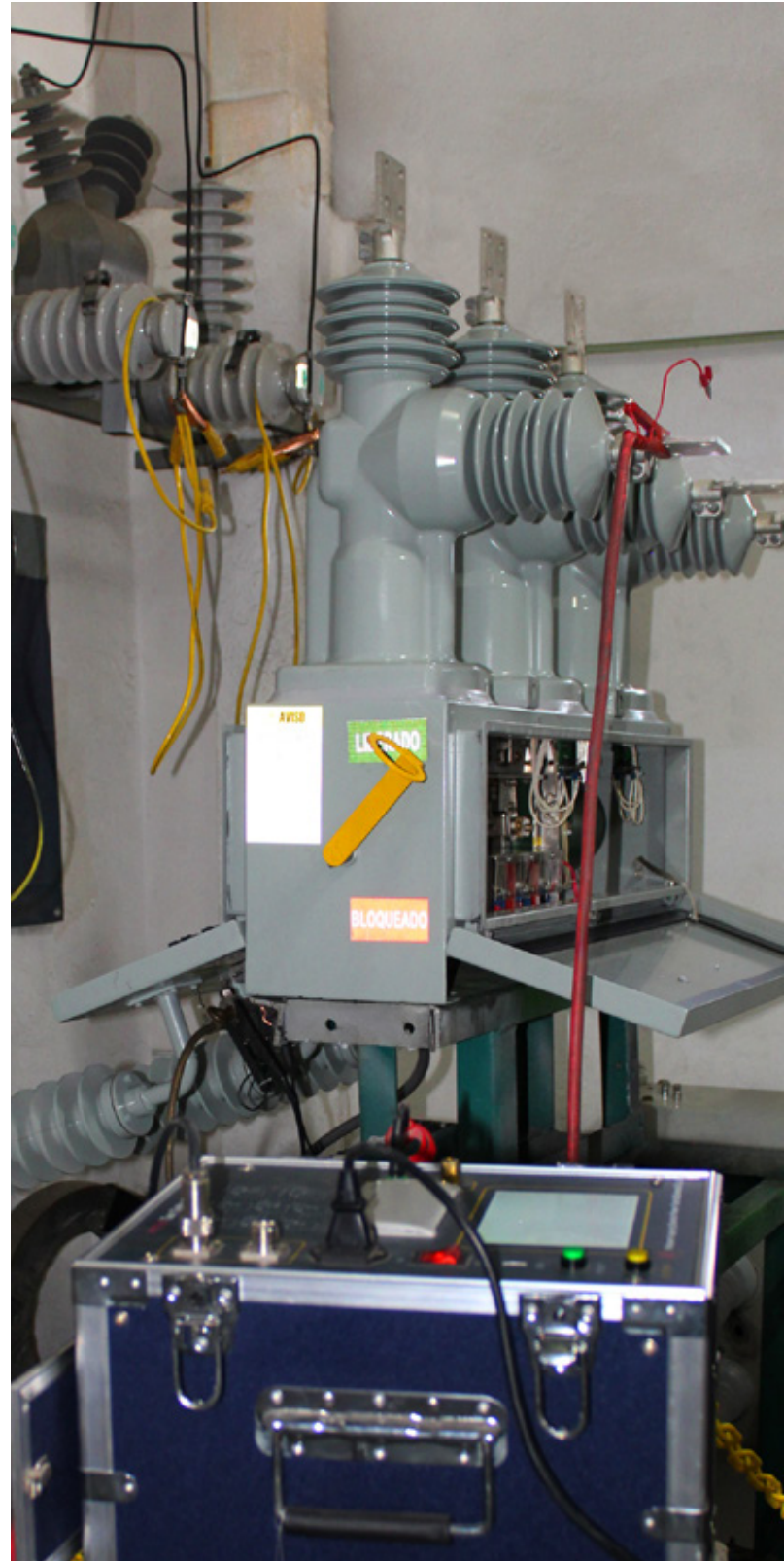
- **Power factor test:**

The Power Factor of an insulation is a dimensionless quantity normally expressed in percentage, which is obtained from the resultant formed by the load current and the loss current taken by the insulation when a given voltage is applied to it, it is in itself, a characteristic of the insulation when subjected to electric fields.

The F.P. insulation test equipment measures the load current and loss watts, where the power factor, capacitance and AC resistance can be easily calculated for a given test voltage.

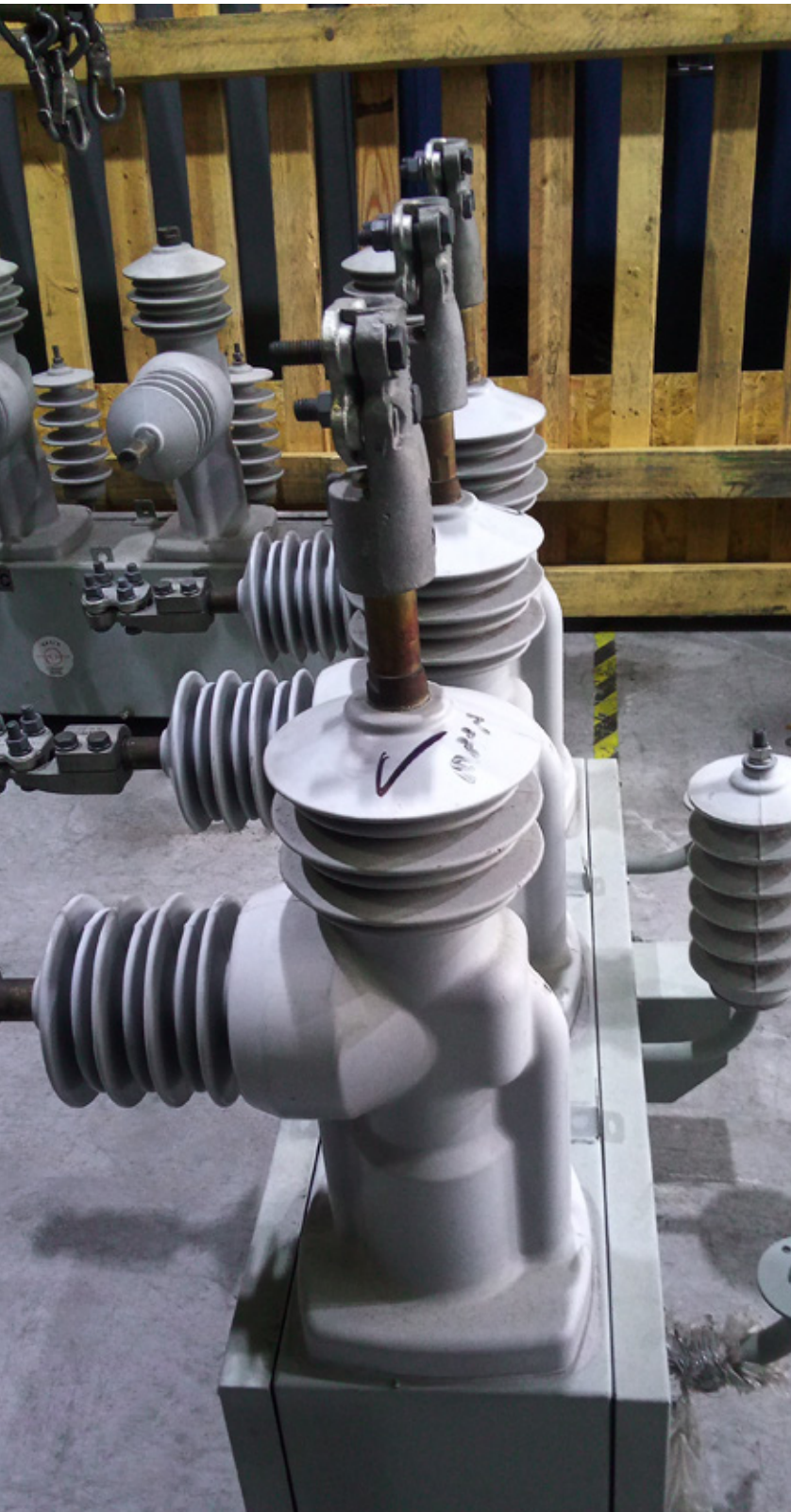
- **Partial discharges:**

These are a localized dielectric breakdown of a small portion of a dielectric insulation system subjected to the stress caused by high voltage.





DESCRIPTION OF THE SERVICE



The development of the service is carried out in the **SIPSEM X** workshop where the restorer is disassembled in its main parts to be later evaluated in a particular way. Which are evaluated in 3 specialties:

- Electrical.
- Electronics.
- Software.

Derived from the revision and diagnosis, we proceed to a possible repair of the damaged part or substitution.

Once the damaged parts have been repaired, the recloser is reassembled and evaluated in its entirety according to the current regulatory procedure.





LASER CLEANING

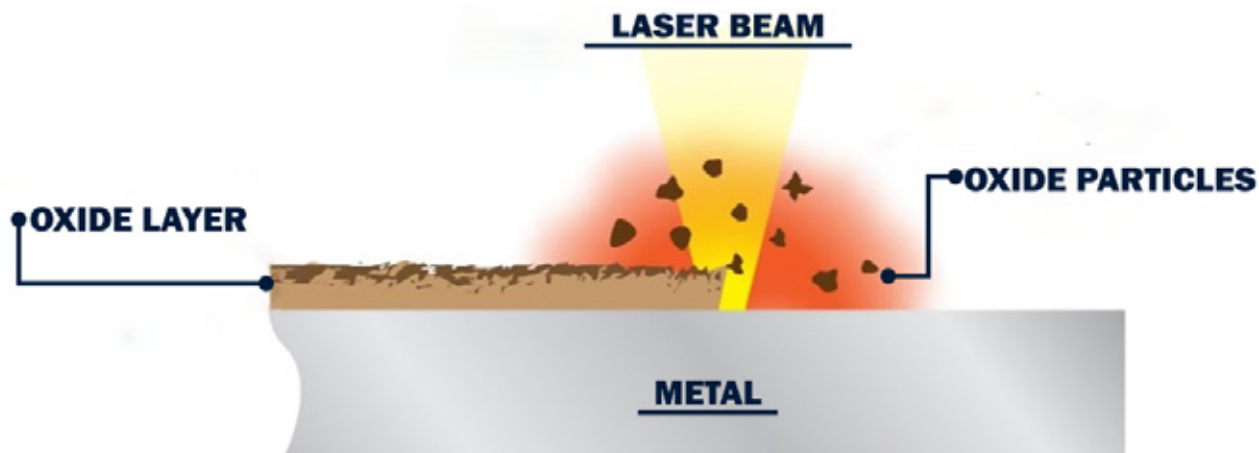
SIPSEMX characterized by innovative and integral solutions, is the only company implementing the new laser cleaning technology applied to the repair of sectioning equipment.

Laser systems are a simple and versatile tool to remove corrosion, rust, scale, lubricants, paint, carbon and other contaminants in a clean and dry process, without deteriorating the material and preserving its composition.

The cleaning of surfaces is a growing need in many activities, in the case of repair is a paramount situation.

Advantages:

1. Non-abrasive technology minimizing wear or deterioration of the material avoiding any change in its composition.
2. Clean technology, does not release materials, sand, dust, or metals.
3. Deep cleaning, with laser cleaning it is possible to reach hard to reach places.
4. Dry cleaning.



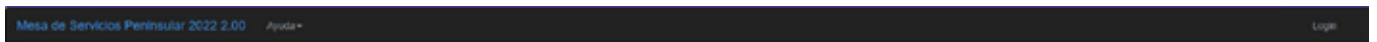


SERVICE DESK

The request, follow-up and evidences are uploaded in the **WEB platform** available to our clients “**Service Desk**” accesible from the web page of **www.sipsemx.com** with personalized and password-protected access.



Where you can select by date and region the service provided.



Subsequently, with the personalized user and password, you will access the portal.



Where corrective or preventive maintenance can be requested, a service ticket is assigned and a time and date for the service is agreed upon. The final report displays photographic evidence, description of failures, work performed, information about the equipment visited.

Mesa de Servicios Peninsular 2.00 Cálculos Operación Solicitudes Anexo DOMINIAN - DANIEL ORTELAS ADMINISTRACIÓN (L. 0014)


Solicitud de mantenimiento correctivo MC-23-0001 Servicio = Correctivo Evaluación = Conceptos =

Restaurador: CRI Descripción: RESTAURADOR CANCUN Control: SMART-P300 -ARTECHE - P300 Tanque: SMART-13 -ARTECHE Entidad Federativa: Quintana Roo Ciudad: Cancun

Fecha de solicitud del servicio: 09/06/2022 08:00 Responsable de área cliente: (RIV-004) GUILLERMO CENTENO Responsable de solicitud cliente: (RIV-004) GUILLERMO CENTENO

Estatus de la solicitud: Abierta Estatus de alarma: Normal Reporte de falla: RESTAURADOR CON FALLA MEDICION DE VOLTAGE

Documentos: Creación



Fecha final del diagnóstico: 09/06/2022 8:00 Tipo de atención: En sitio Fecha inicial del servicio: 09/06/2022 8:00 Fecha final del servicio: 09/06/2022 8:00 Número de licencia: 435 RIM: Licencia no necesaria Responsable de atención operación: ERICK ORTELAS

Valor de tierra actual: 3 Ohms Valor de tierra mejorada:

Descripción de la falla: Daño en 2 TP lado carga. Quemado cableado interno bancada 3 Quadric, Cable control Descripción de la solución: Suministro estación 2 TP Cambio de Cableado interno, Reemplazo 3 Quadric, Reparación tarjeta control

Formato revisión pruebas: Si Bateria respaldo: MBI Dañada 7.0 volt Fuente cargador: Ok No respalda baterías

Rela: Ok BT supresor: Ok Lámparas: Ok Polo: Ok

TP externo: MBI 2 (Inversores Dañados) Conectores: MBI Filtrado Switch puerta: Ok Chapas puerta cuadro: Ok

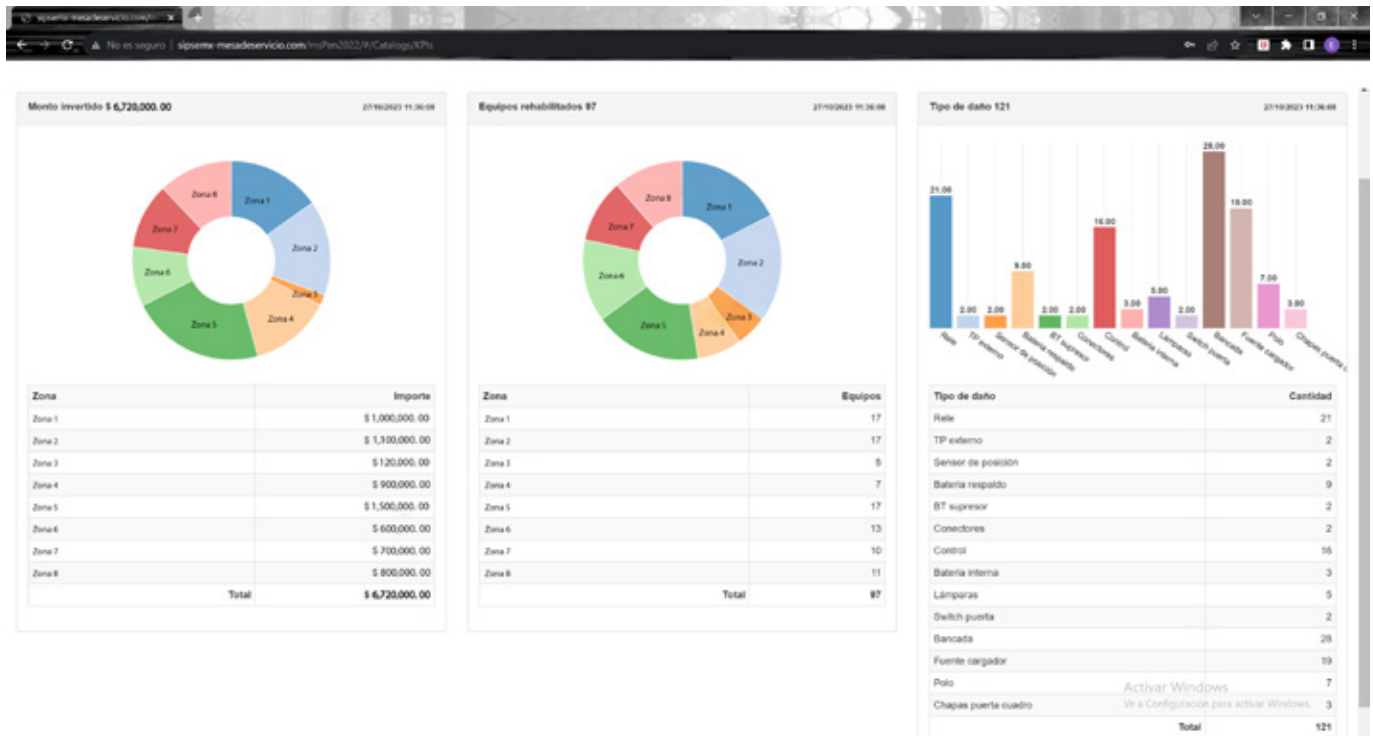
Sensor de posición: Ok Control: Ok Bancada: MBI Cableado Filtrado

Tipo	Concepto	Descripción	Importe	Marca	Modelo



KPIs

Generating a history of the visited restorer in a particular or general look of all the equipment of a zone or division, **representing investment, rehabilitated equipment and typical failures by brand and model, achieving with this information the decision making in preventive maintenance.**





CONTACT US

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www.sipsemx.com