

Predictive Maintenance



360° Electromechanical
installation solutions

Stop guessing when your machines will fail.

The Value

That breakdown you didn't see coming? We'd have put it on the calendar weeks ago.

Arpedon's instruments listen continuously and on routes (vibration, ultrasound, thermography, current, operation data) and feed Mechbase. Early warning for the operator, evidence for the analyst, a work order for the planner. Built on twenty years inside industrial plants.

- Earlier fault detection**
Weeks before symptoms reach the operator.
- Lower energy losses**
Air & steam leaks pinpointed at source.
- Fewer unplanned stops**
Failures rescheduled into planned windows.
- One operating picture**
Every technique, single screen, single login.

01 MaintNode

Fixed | Continuous | 24/7

The edge node for assets that never sleep: crushers, compressors, critical pumps, electrical panels. Permanently installed, talks to sensors, your PLCs and power analyzers, streams to Mechbase.



- [A] **Sensor agnostic**
IEPE accelerometers, Ultrasound, 0–10 V / 4–20 mA: pressure, temperature, speed, current. One node, every modality.
- [B] **Talks to your line**
Modbus RTU/TCP and OPC-UA. PLCs, power analyzers, automations. Measurement and process data side by side.
- [C] **Streams to Mechbase**
Measurements queue on the device, atomic local writes, background upload. Network drops never lose a measurement.
- [D] **Auto work-orders**
Breach a limit; a work order fires automatically into your CMMS, ERP or Business Analytics.

Specifications	SAMPLING RATE	100 kHz max
	CHANNELS	16
	INPUTS	±10 V 4-20mA IEPE Modbus RTU/TCP OPC-UA
	OUTPUTS	Modbus RTU/TCP OPC-UA MQTT

02 WearDC



Portable | Route-Based

For assets you walk to. The technician opens the route, scans the QR, follows on-screen photos and prompts. Vibration, ultrasound, thermography and visual inspections, captured cleanly enough that anyone can take them.

[E] Many modalities, one device

Vibration · ultrasound · current · temperature · speed. Plus FLIR thermography and optical inspection in the same route.

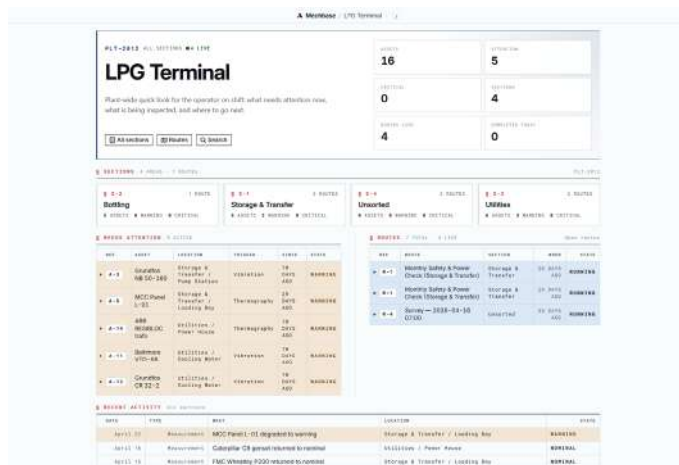
[F] Routes anyone can run

Photos, drawings and step-by-step prompts on the phone. New technicians take valid measurements from day one.

03 Mechbase

Web | Mobile | Integrations

Most plants find out a machine is failing the day it stops. Mechbase is built so that doesn't happen. One platform, web and mobile, capturing the full signal on every reading (waveforms, spectra, envelope and the standard scalars) and analyzing it automatically by load and severity. The alarms tune themselves to how the asset actually runs, so you catch real change early, with the data to back it.



Trusted across
the industry

Food & beverage | Heavy industry
Oil & gas | Recycling



We deliver the instrument and the outcome

Service Terms | Turnkey

[1] **Inspection & Maintenance**

Criticality analysis, ROI calculation, measurement-point installation, training and supervision.

[2] **Leak Detection & Repair**

Compressed-air, gas and steam-trap surveys with ultrasound. We pinpoint losses, fix at source, and document the savings. A single survey can reveal tens of thousands in costs.

[3] **Condition Monitoring**

Vibration, ultrasound, thermography, current and lubrication under one platform, with statistical alarms tuned to your load. Bearing defects can be caught early.

What We Do

[1] **E/M Installations**

Turnkey electrical, mechanical & fire-protection systems for industry and public works for 20+ years.

[2] **Condition-Based Monitoring**

Predictive-maintenance instrumentation, software and integration services.

[3] **Research & Defence**

Civil-protection and defence-sector R&D

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