CompressorIQ — User Manual

Version: 0.2 (MVP) **Audience:** Service managers / planners and field technicians.

This manual describes each major screen, what it is for, and how to use it. The companion file **`CompressorIQ_User_Guide_Screenshots.pdf`** shows the same pages visually. A **combined PDF** (`CompressorIQ_User_Manual.pdf`) may include this text plus those screenshots—see your administrator or project `scripts/build_combined_manual_pdf.py`.

How this application is organized

CompressorIQ helps you:

1. **See** fleet-wide and per-compressor maintenance history and signals.

2. **Predict / assess** risk using rules and optional AI (health assessment, recommendations).

3. **Prescribe** step-by-step work (workflows attached to recommendations or generated by category).

4. **Dispatch** work orders to technicians and **execute** them in the field.

There are two primary **personas**:

Persona	Primary goals	Main pages
Manager	Prioritize units, create and assign work, import data, review AI insights	Dashboard, Compressors, Service Records, **Work orders**,
Technician	See assigned jobs, follow steps, record progress	**My work**, Notifications

Everyone can use **Dashboard** and **Notifications**; role is about *workflow*, not a separate login today.

Part 1 — Manager persona

Use Part 1 when you oversee the fleet, decide what work to do, assign people, and keep data current.

1. Dashboard

What you see

- **Fleet overview:** Totals (events, compressors, run hours), preventive/corrective mix, top issue categories, and **machines needing attention** (recent elevated activity).
- **Recent service events:** A short list of the latest work across the fleet.
- **Compressor selector:** Dropdown labeled like “Select Compressor.” Choosing **“All Fleet (Overview)”** keeps the overview; choosing a unit opens **detail** for that asset.

Why it matters

This is your situational awareness screen: where to focus before opening or assigning work orders.

Typical steps

1. Scan KPIs and “machines needing attention.”

2. Optionally pick a compressor to review detail, health assessment, and recommendations for that unit.

3. Use **Run Assessment** / **Re-assess** to refresh AI/rule-based health output when preparing a decision.

4. If the assessment creates **system work orders** (severe alerts), follow the banner link to **Work orders** to assign them.

Tips

- If assessment opens new system work orders, they appear with source **System**; assign a technician when ready.

- API or database issues can delay loading—confirm the API is running if the page hangs.

2. Compressors (`/machines`)

What you see

- A list of compressor **assets** and, when selected, **detail** (stats, last service), **timeline** of service events, and **issue frequency** (categories and counts).

Why it matters

Use this for investigations: “What happened on this unit?” before you write a work order or answer a customer.

Typical steps

1. Find the unit (list or search behavior depends on your build).
2. Open timeline and issues to understand repeat failures or recent repairs.
3. Switch to **Work orders** to open a corrective or follow-up job if needed.

3. Service Records (`/service-records`)

What you see

- Searchable / browsable **historical service events** (orders, categories, dates, costs where available).

Why it matters

Audits, warranty questions, and root-cause review start here—not from Work orders.

Typical steps

1. Filter or search for the unit or date range you care about.
2. Open a record for full narrative and linked data.
3. Do **not** confuse this with dispatch: new field work is created under **Work orders**.

4. Work orders (`/work-orders`) — core manager workflow

What you see

- **Fleet queue:** Table of work orders with title, unit, **source**, **status**, assignee, dates.
- **Filters:** Status and compressor to narrow the list.
- **New work order:** Form for compressor, title, description, source, optional link to a **recommendation**, optional **issue category**, optional assignee.
- **Detail panel:** When a row is selected—assign technician, change status, skim **workflow steps** that the technician will see.

Sources (important)

- **Predictive** — tied to analytics / recommendations.
- **System** — created automatically (e.g. from health assessment alerts); still needs assignment unless your process auto-assigns elsewhere.
- **Ad hoc** — you create manually for anything outside automated flows.

Why it matters

This is where **dispatch** happens: turning analysis into assigned, trackable work with step-by-step guidance.

Typical steps

1. Triage the queue (open → in progress → completed).

2. **New work order:** choose compressor and title; link a recommendation if the job comes from AI/engine output; otherwise set **issue category** (or general) so steps generate correctly.

3. Assign a technician from the directory (populated from imported data).

4. Update status as the field reports progress (or let technicians drive status from **My work** where implemented).

Tips

- Linking a **recommendation** copies its workflow steps onto the work order snapshot.
- Without a recommendation, steps come from templates by **issue category** (e.g. detonation vs general).

5. Notifications (`/notifications`)

What you see

- A list of **fleet-wide** notices (e.g. system-created work orders) and **assignment** notices targeted to a technician.
- Filters: unread vs all; **Mark all read** to clear.

Why it matters

Managers stay aware of automated work and can confirm technicians were notified when assigned.

Typical steps

1. Review unread items after assessments or bulk assignments.
2. Mark read when processed.

6. Workflows (`/workflow`)

What you see

- **Recommendations** across machines: issue hints, confidence, status, links into detailed workflow views.

Why it matters

Bridges **insight** → **work order**: you confirm the recommendation, then create or link a work order.

Typical steps

1. Sort or scan for high-confidence or urgent items.
2. Open detail to read prescribed steps and evidence.
3. Create a work order from **Work orders** and link the same recommendation when applicable.

7. Upload Data (`/upload`)

What you see

- File upload for maintenance spreadsheets; status of processing; list of past uploads (where implemented).

Why it matters

Fresh data powers analytics, technician directory, and dashboards.

Typical steps

1. Use the template/format your team agreed on.
2. Upload and wait for completion.
3. Verify **Dashboard** / **Compressors** reflect new events.

Part 2 — Technician persona

Use Part 2 when you perform work in the field and need clear instructions and ownership of tasks.

1. My work (`/my-work`)

What you see

- **You are:** Dropdown to select **your name** (stored in the browser so it persists).
- **Assigned to me:** Work orders assigned to you (typically open / in progress).
- **Job detail:** Title, unit, description, and **steps** with instructions, rationale, and required evidence.
- Checkboxes to mark steps complete; **Mark work order complete** when done.

Why it matters

This is your single queue for **actionable** work—the same steps the manager saw in preview are what you execute.

Typical steps

1. Select your name.
2. Open a work order from the list.
3. Follow steps in order; capture evidence as requested (photos, readings, notes—per step text).
4. Mark the work order complete when the job is finished and documented.

Tips

- If the list is empty, nothing is assigned to you—contact your manager or check **Notifications**.
- Technician names come from **imported** service data; if you are missing, ask for a data refresh or admin update.

2. Notifications (`/notifications`)

What you see

- Same page as managers, but your **technician** selection (on **My work**) affects which targeted alerts you care about.
- You see **broadcast** (fleet) items plus items **assigned to you** (e.g. new assignment).

Why it matters

You learn when new work is assigned without refreshing **My work** constantly.

Typical steps

1. Open notifications when prompted or daily.
2. Mark items read after you have opened the work order in **My work**.

3. Dashboard (technician use)

What you see

- Same fleet and per-compressor views as managers.

Why it matters (for technicians)

Optional **context** before a job: recent events, health assessment, and alerts for the unit you are about to service.

Typical steps

1. Select the compressor you are visiting.

2. Skim assessment and alerts; run **Re-assess** only if you need a fresh snapshot.

3. Perform the actual work in **My work**.

4. Workflows (optional for technicians)

What you see

- Recommendation list and detail—read-only insight.

Why it matters

Background on *why* a work order was opened; execution remains under **My work**.

Part 3 — Concepts and troubleshooting

Work order status

Status	Meaning
Open	Not started or not yet picked up in the field
In progress	Work underway (e.g. a step completed)
Completed	Job finished
Cancelled	Superseded or not needed

Automated system work orders

When **health assessment** finds **high/critical** alerts (configurable), the system may create **system** work orders with deduplication per compressor and alert. Managers should **assign** technicians and track completion.

API key (if enabled)

If your deployment uses an **API key**, the browser must send the matching key for mutating operations. If actions fail with 401, check with your administrator.

Troubleshooting

Problem	What to try
Blank or loading forever	Confirm API URL and that backend is running; check network tab for errors
No technicians in dropdown	Ensure maintenance data has been imported so technician records exist
No jobs under My work	Confirm manager assigned you on Work orders
Slow UI in development	Avoid cloud-synced project folders; use local disk if possible

End of CompressorIQ User Manual

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Predictive Maintenance

- Dashboard
- Service Records
- Compressors
- Work orders
- My work
- Notifications
- Workflows
- Upload Data

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Dashboard

Fleet overview and compressor intelligence

TOTAL COMPRESSORS	FLEET RUN HOURS
45	1,659,766

TOTAL SERVICE EVENTS	CORRECTIVE EVENTS
1707	447

PREVENTIVE EVENTS
560

Select Compressor

Choose a compressor to view detailed history, issues, and AI-powered recommendations

— All Fleet (C

Recent Service Events

Latest maintenance activity across the fleet

DATE	ORDER #	DESCRIPTION	CATI
Mar 29, 2026	4456806	Maintenance - PM-1	Pre Ma
Mar 25, 2026	4460681	—	Ot
Mar 24, 2026	4460053	—	Ot
Mar 24,	4455824	Emissions 180 Day	Em

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Machines

Compressor assets, issue history, and service timeline. ← Home

Asset list

Select a unit to view detail

MC1095	active	
Eq. 500024348		
Run hours		108,474
MC1795	active	
Eq. 500023860		
Run hours		96,158
MC1919	active	
Eq. 500024395		
Run hours		93,310
MC2249	active	
Eq. 500024593		
Run hours		—
MC3069	active	
Eq. 500024007		
Run hours		68,311
MC6057	active	
Eq. 500024463		
Run hours		30,489
MC6068	active	

No asset selected

Choose a compressor from the list to load unit detail, issue frequency, and the service timeline.

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Service Records

Search and review maintenance service events.

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Search notes / description

Keywords...

Category

All categories

From

mm/dd/yyyy

To

mm/dd/yyyy

Search | Clear

Date	Order #	Description	C
Mar 29, 2026	4456806	Maintenance - PM-1	
Mar 25, 2026	4460681	—	
Mar 24, 2026	4460053	—	
Mar 24, 2026	4455824	Emissions 180 Day	
Mar 24, 2026	4452058	Emissions 36 Mo.	
Mar 23, 2026	4460052	—	

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Predictive Maintenance

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SERVICE MANAGER

Work orders

Create and assign corrective work from predictions, system alerts, or ad hoc requests. Technicians execute steps on the My work page.

New work order

Failed to fetch (http://127.0.0.1:8001)

Status: All

Compressor: All units

Fleet queue

No work orders yet. Create one to assign field work.

Detail

Select a work order to assign and update status.

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FIELD TECHNICIAN

My work

Work orders assigned to you. Open a row for full step-by-step instructions and mark steps complete as you go.

You are

Select your name...

Choose your profile to see assigned work.

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Notifications

Fleet alerts (system work orders) and assignments to you. Matches the technician selected on My work when set.

Unread

Mark all read

No notifications to show.

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Workflows

AI-generated maintenance recommendations and prescribed workflows.

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Date	Issue Category	Recommen Action
Apr 6, 2026, 12:25 AM	**Routine Service**	Component Replacemer
Apr 5, 2026, 04:22 PM	**Routine Service**	Component Replacemer
Apr 5, 2026, 03:38 AM	**Lubrication**	Component Replacemer
Apr 1, 2026, 10:20 PM	—	Component Replacemer
Apr 1, 2026, 01:24 PM	**Routine Service**	Component Replacemer
Apr 1, 2026, 01:19 PM	**Filter Maintenance**	Cleaning
Apr 1, 2026, 12:45 PM	—	Component Replacemer
Apr 1, 2026, 12:17 PM	**Lubrication**	general
Apr 1, 2026, 12:16 PM	**Pressure Abnormality**	Component Replacemer
Apr 1, 2026, 12:16 PM	—	Component Replacemer
Apr 1, 2026, 01:49 AM	**Routine Service**	Component Replacemer
Apr 1, 2026, 01:26 AM	**Seal Gasket**	general

Dashboard
Service Records
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Upload Data

Maintenance data upload

Upload Excel or CSV spreadsheets to import maintenance records.

Choose a file or drag and drop here

.xlsx, .xls, or .csv

Upload

Upload history

Filename	Upload date	Statu
cec2437ea8584b8ea555...	Mar 31, 2026, 5:08 PM	com
unknown	Mar 29, 2026, 4:29 PM	com
Unit MC6068 Maintenan...	Mar 29, 2026, 4:12 PM	com