

Hierarchical model for failure dependency in unplanned tasks

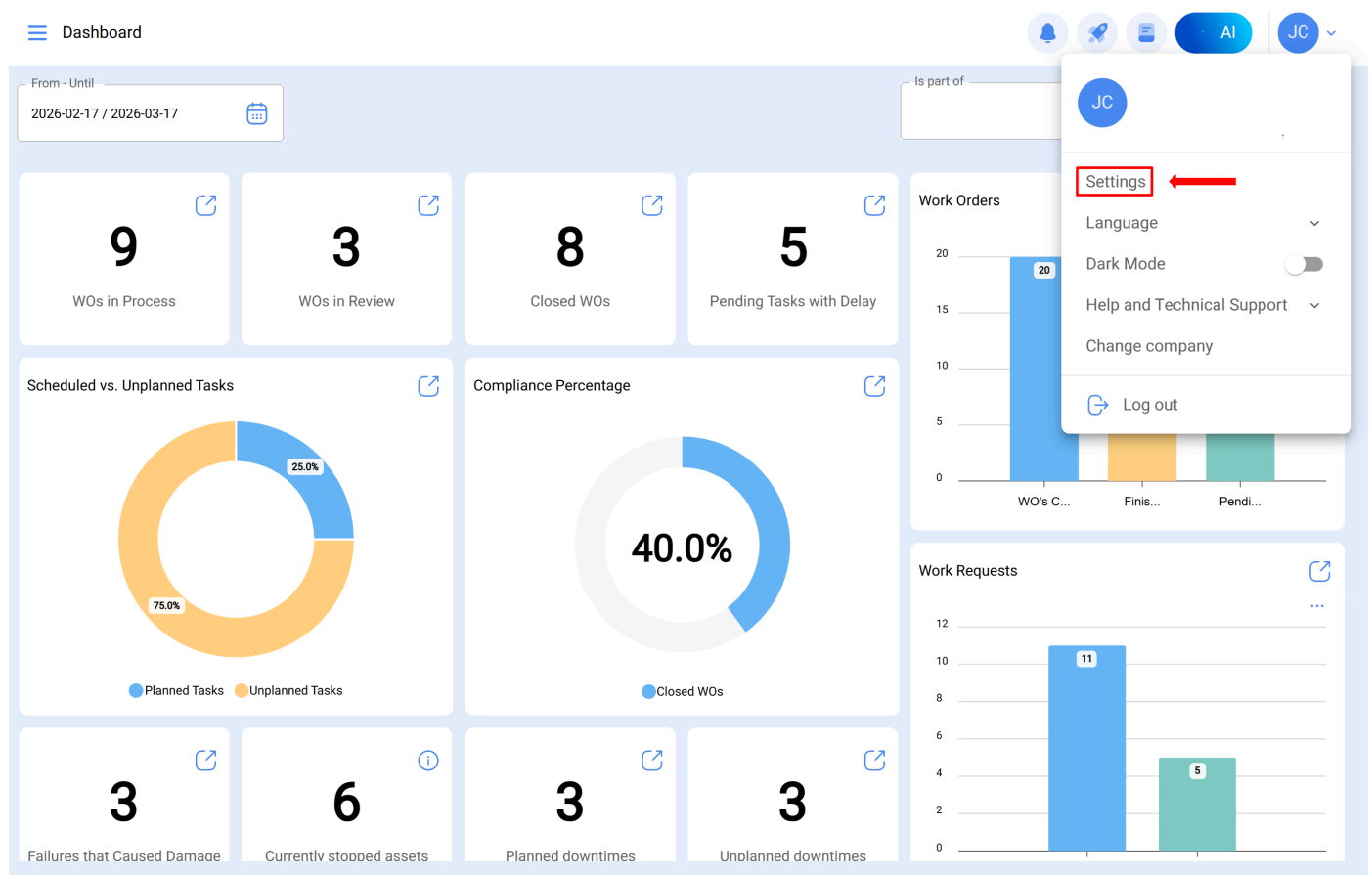
help.fracttal.com/hc/en-us/articles/44354558411661-Hierarchical-model-for-failure-dependency-in-unplanned-tasks

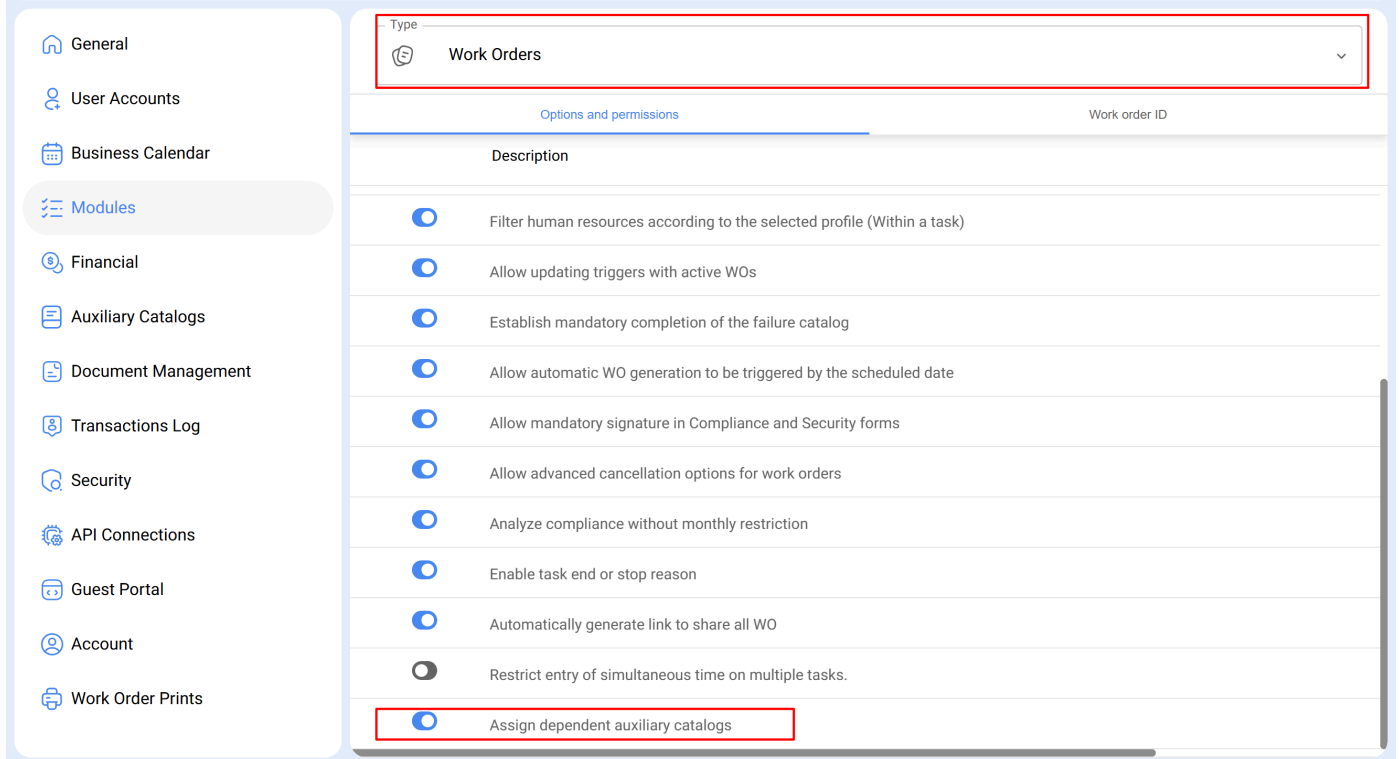
Fractal One uses a hierarchical model to record failures in unplanned tasks, based on the relationship between failure type and cause, ensuring an organized and consistent record. When creating an unplanned task with a failure, the system dynamically filters options according to selections, showing only related failure causes, and automatically removes dependencies if any selection is changed to maintain consistency.

Activation of Auxiliary Catalogs with dependency

To use the hierarchical structure of failures, it is necessary to first enable the corresponding option in the Work Orders configuration.

Configuration → Modules → Work Orders





The screenshot shows the 'Work Orders' configuration page. The 'Type' dropdown is set to 'Work Orders'. The 'Options and permissions' section is active, showing a list of settings. The 'Assign dependent auxiliary catalogs' setting is highlighted with a red box.

Description	Work order ID
<input checked="" type="checkbox"/> Filter human resources according to the selected profile (Within a task)	
<input checked="" type="checkbox"/> Allow updating triggers with active WOs	
<input checked="" type="checkbox"/> Establish mandatory completion of the failure catalog	
<input checked="" type="checkbox"/> Allow automatic WO generation to be triggered by the scheduled date	
<input checked="" type="checkbox"/> Allow mandatory signature in Compliance and Security forms	
<input checked="" type="checkbox"/> Allow advanced cancellation options for work orders	
<input checked="" type="checkbox"/> Analyze compliance without monthly restriction	
<input checked="" type="checkbox"/> Enable task end or stop reason	
<input checked="" type="checkbox"/> Automatically generate link to share all WO	
<input type="checkbox"/> Restrict entry of simultaneous time on multiple tasks.	
<input checked="" type="checkbox"/> Assign dependent auxiliary catalogs	

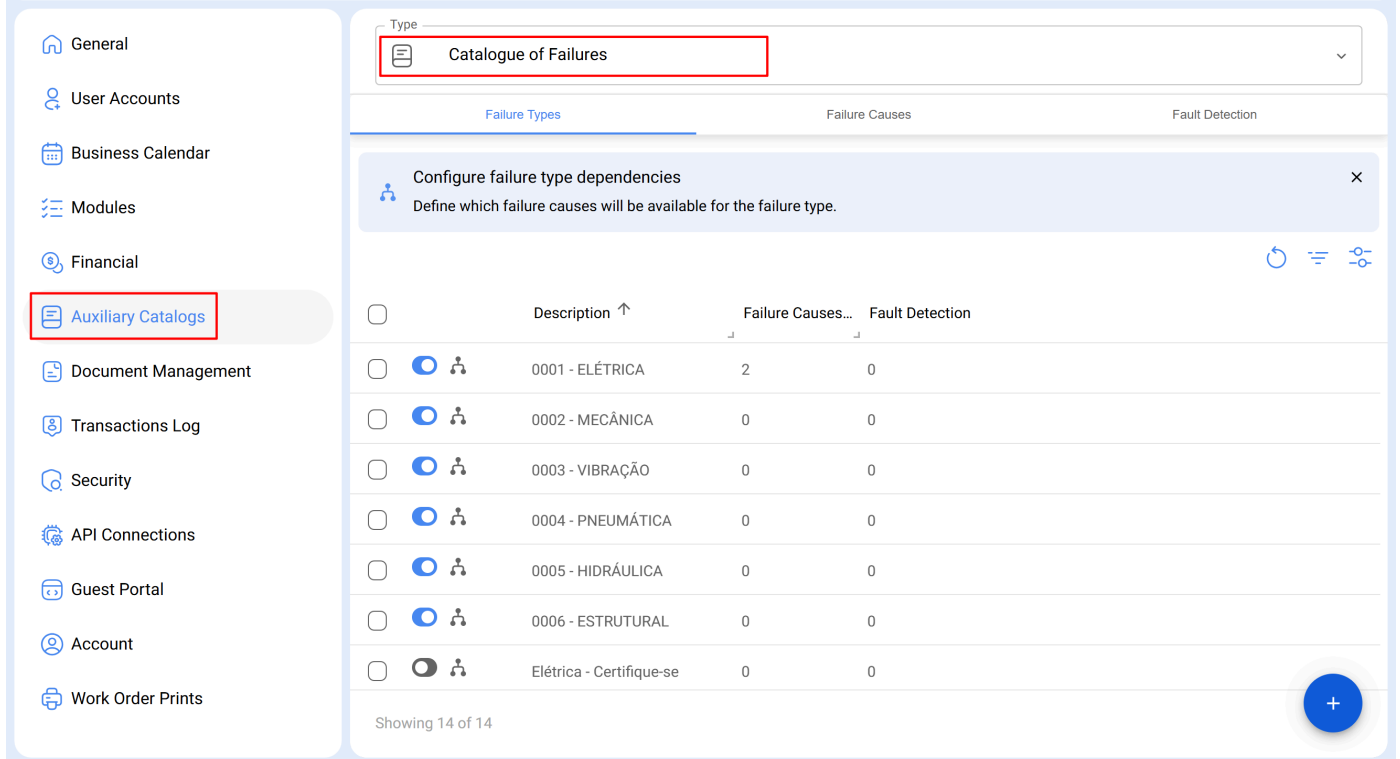
Within the options and permissions section, activate the setting: **Assign auxiliary catalogs with dependency**

Failure hierarchy configuration

The definition of hierarchical relationships is done from:

Configuration → Auxiliary Catalogs → Failure Catalogs

Save



General

User Accounts

Business Calendar

Modules

Financial

Auxiliary Catalogs

Document Management

Transactions Log

Security

API Connections

Guest Portal

Account

Work Order Prints

Type

Catalogue of Failures

Failure Types

Failure Causes

Fault Detection

Configure failure type dependencies

Define which failure causes will be available for the failure type.

	Description ↑	Failure Causes...	Fault Detection
<input type="checkbox"/>	0001 - ELÉTRICA	2	0
<input type="checkbox"/>	0002 - MECÂNICA	0	0
<input type="checkbox"/>	0003 - VIBRAÇÃO	0	0
<input type="checkbox"/>	0004 - PNEUMÁTICA	0	0
<input type="checkbox"/>	0005 - HIDRÁULICA	0	0
<input type="checkbox"/>	0006 - ESTRUTURAL	0	0
<input type="checkbox"/>	Elétrica - Certifique-se	0	0


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Within this section, there are two main levels for configuring dependencies:

- **Failure Types**
- **Failure Causes**

Type







Failure Types
 Failure Causes
 Fault Detection


Configure failure type dependencies
×

Define which failure causes will be available for the failure type.





<input type="checkbox"/>	Description ↑	Failure Causes...	Fault Detection
<input type="checkbox"/>	<input checked="" type="radio"/>  0001 - ELÉTRICA	2	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0002 - MECÂNICA	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0003 - VIBRAÇÃO	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0004 - PNEUMÁTICA	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0005 - HIDRÁULICA	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0006 - ESTRUTURAL	0	0

To configure the hierarchy, follow this procedure:

1. Select the (+) icon to create a new record in the catalog.

The screenshot shows the 'Catalogue of Failures' configuration page. The left sidebar contains various settings categories, with 'Auxiliary Catalogs' selected. The main content area displays a table with the following data:

	Description ↑	Failure Causes...	Fault Detection
<input type="checkbox"/>	0001 - ELÉTRICA	2	0
<input type="checkbox"/>	0002 - MECÂNICA	0	0
<input type="checkbox"/>	0003 - VIBRAÇÃO	0	0
<input type="checkbox"/>	0004 - PNEUMÁTICA	0	0
<input type="checkbox"/>	0005 - HIDRÁULICA	0	0
<input type="checkbox"/>	0006 - ESTRUTURAL	0	0
<input type="checkbox"/>	Elétrica - Certifique-se	0	0

A blue circle with a white plus sign is highlighted in the bottom right corner of the table area, indicating the 'Add' button.

2. Enter a description corresponding to the failure type or failure cause.

The screenshot shows the 'Catalogue of Failures' configuration page with a modal dialog open. The modal dialog has a 'Description' field containing the text 'MECHANICAL WEAR'. The background page is dimmed, showing the same table as in the previous screenshot.

3. Save the record so it becomes available in the system.

Settings

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Save

General

User Accounts

Business Calendar

Modules

Financial

Auxiliary Catalogs

Document Management

Transactions Log

Security

API Connections

Guest Portal

Account

Work Order Prints

Type
Catalogue of Failures

Failure Types Failure Causes Fault Detection

Configure failure type dependencies
Define which failure causes will be available for the failure type.

<input type="checkbox"/>	Description ↑	Failure Causes...	Fault Detection
<input type="checkbox"/>	MECHANICAL WEAR	0	0
<input type="checkbox"/>	0001 - ELÉTRICA	2	0
<input type="checkbox"/>	0002 - MECÂNICA	0	0
<input type="checkbox"/>	0003 - VIBRAÇÃO	0	0
<input type="checkbox"/>	0004 - PNEUMÁTICA	0	0
<input type="checkbox"/>	0005 - HIDRÁULICA	0	0
<input type="checkbox"/>	0006 - ESTRUTURAL	0	0








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Action Done

+

Once the record is created, it is possible to define its hierarchical dependencies:

4. Select the hierarchy icon on the corresponding item.

Failure Types		Failure Causes	Fault Detection
<p>Configure failure type dependencies</p> <p>Define which failure causes will be available for the failure type.</p>			
<input type="checkbox"/>	Description ↑	Failure Causes...	Fault Detection
<input type="checkbox"/>	<input checked="" type="radio"/>  MECHANICAL WEAR	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0001 - ELÉTRICA	2	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0002 - MECÂNICA	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0003 - VIBRAÇÃO	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0004 - PNEUMÁTICA	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0005 - HIDRÁULICA	0	0
<input type="checkbox"/>	<input checked="" type="radio"/>  0006 - ESTRUTURAL	0	0

5. In the case of **Failure Types**, please associate the failure causes you want to relate.

Settings

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- General
- User Accounts
- Business Calendar
- Modules
- Financial
- Auxiliary Catalogs
- Document Management
- Transactions Log
- Security
- API Connections
- Guest Portal
- Account
- Work Order Prints

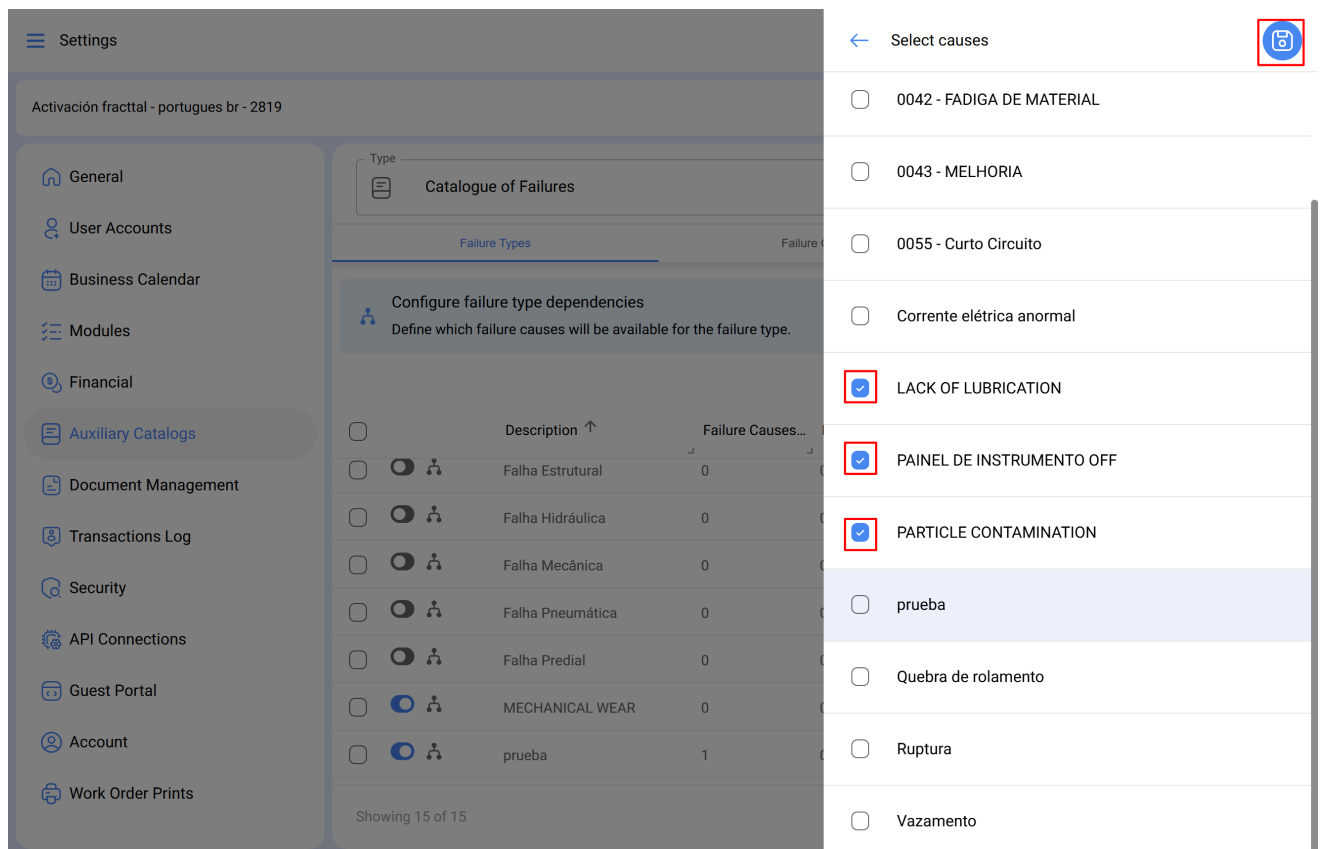






Type

Catalogue of Failures

Failure Types


Configure failure type dependencies

Define which failure causes will be available for the failure type.

<input type="checkbox"/>	Description ↑	Failure Causes...
<input type="checkbox"/>	<input checked="" type="radio"/>  Falha Estrutural	0
<input type="checkbox"/>	<input checked="" type="radio"/>  Falha Hidráulica	0
<input type="checkbox"/>	<input checked="" type="radio"/>  Falha Mecânica	0
<input type="checkbox"/>	<input checked="" type="radio"/>  Falha Pneumática	0
<input type="checkbox"/>	<input checked="" type="radio"/>  Falha Predial	0
<input type="checkbox"/>	<input checked="" type="radio"/>  MECHANICAL WEAR	0
<input type="checkbox"/>	<input checked="" type="radio"/>  prueba	1

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Select causes



- 0042 - FADIGA DE MATERIAL
- 0043 - MELHORIA
- 0055 - Curto Circuito
- Corrente elétrica anormal
- LACK OF LUBRICATION
- PAINEL DE INSTRUMENTO OFF
- PARTICLE CONTAMINATION
- prueba
- Quebra de rolamento
- Ruptura
- Vazamento

6. In the case of **Failure Causes**, associate the corresponding detection methods.

7. Save the configuration to apply the defined relationships.

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Settings

Save

General

User Accounts

Business Calendar

Modules

Financial

Auxiliary Catalogs

Document Management

Transactions Log

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Account

Work Order Prints

Type: Catalogue of Failures

Failure Types | Failure Causes | Fault Detection

Configure failure type dependencies
Define which failure causes will be available for the failure type.

<input type="checkbox"/>	Description ↑	Failure Causes...	Fault Detection
<input type="checkbox"/>	MECHANICAL WEAR	3	0

Showing 1 of 1

After completing this process, the system correctly records the hierarchical structure, allowing its use in the operational workflow for failure registration.

Recording failure information in Tasks

During the creation or editing of an unplanned task marked as a failure:

1. Select the corresponding failure type while filling out the task in the "failure information" option and check "Did the asset fail?".

Fracttal Br - Jonas { 002811-jc }

Task Sub Tasks Resources Attachments

Trigger

Non Scheduled Tasks

Event date
2025-12-18 11:38

Failures Information

Has the asset failed?

Fault Type ▼
Fault Type can't be blank

Failures Causes ▼
Fault Cause can't be blank

Fault Detection Method ▼
Fault Detection Method can't be blank

11-jc }

de equipamento

Priority: Medium

Task type: 02 - Preventiva

291

2026-03-05

2. Select the corresponding failure type.

Work Order

Jonas Campos

2026-03-05 00:10

00:00

Note

Work Management

Fracttal Br - Jonas { 002811-jc }

//

Solicitação de revisão de equipamento

Priority: Medium

Task type: 02 - Preventiva

Group 1:

Group 2:

Work Request Num... 291

Actual Schedule Dat... 2026-03-05

Estimated Duration: 00:10:00

RESOURCES 0 | ATTACHMENTS 0

Fault Type

MECHANICAL WEAR

Showing 1 of 1

+

3. Select the cause of the failure as appropriate.

The screenshot shows two panels. The left panel, titled 'Work Order', displays user information (Jonas Campos), a date (2026-03-05), and a duration (00:10). Below this is a 'Note' field and a 'Work Management' section for 'Fractal Br - Jonas { 002811-jc }'. The right panel, titled 'Failures Causes', shows a list of three causes: 'LACK OF LUBRICATION', 'PAINEL DE INSTRUMENTO OFF', and 'PARTICLE CONTAMINATION'. At the bottom of the right panel, it says 'Showing 3 of 3' and has a blue '+' button.

* The system will only show causes associated with that type *

The screenshot shows two panels. The left panel is identical to the previous one. The right panel, titled 'Fractal Br - Jonas { 002811-jc }', has a navigation bar with 'Task', 'Sub Tasks', 'Resources', and 'Attachments'. Below this is a 'Trigger' section with 'Non Scheduled Tasks' and an 'Event date' field containing '2025-12-18 11:38'. The 'Failures Information' section includes a checked checkbox 'Has the asset failed?', a 'Fault Type' dropdown set to 'MECHANICAL WEAR', a 'Failures Causes' dropdown set to 'PARTICLE CONTAMINATION', a red-bordered 'Fault Detection Method' field with an error message 'Fault Detection Method can't be blank', a 'Fault Severity' dropdown set to 'Undefined severity', and a 'Type of damage' dropdown set to 'None'. At the bottom, there are 'Start' and 'Log' buttons.

This behavior corresponds to dynamic filtering, guiding the user in the registration and preventing invalid combinations.