

# Da Vinci Smart Manufacturing

## BRD S09.02 Log Book Furnace Bed Log

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1.0	Leopoldo Rivera Sahana Badal	S09.01 First draft	5/07/2025

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## 1. Furnace Bed Log List Screen

The Furnace Bed Observation **list screen** will display a list of all observations recorded in the system. The following functionalities are included:

### 1.1. Header Section

The header must always be visible and contains the following

- **Title:** "Furnace Bed Log"
- **Action Buttons in Header:**
  - Add Observation: Button to create a new Observation
- **Search Bar:** Tooltip text: Search by Observation ID (e.g. 12 in FB\_12)
- **Filters:**
  - Furnace ID
    - Multiselect Dropdown:
    - All furnaces for which Observation IDs exists.
  - From To (Tap ID date range)
    - Date range picker
  - Username
    - Multiselect Dropdown:
    - All User IDs (User ID | First Name Last Name) for which Observation IDs exists.
  - Clear Filter - This will clear all the applied filters
  - All Filter drop downs should be sorted alphabetically / numerically
  - Filter options will not reset unless the user navigates to a different menu or module. This means any filters applied will persist as long as the user remains within the same menu option, ensuring continuity until a module change occurs.

### 1.2. Observation List:

**Table Default Sorting :** Latest Modified First

- **Observation ID:**

- System-generated ID in the format (FB\_incremental number from 1).
- Sorting: Yes
- Frozen - Yes
- **Furnace ID:**
  - The furnace number for which the observation was done.
  - Sorting: Yes
  - Frozen: No
- **Observation Date & Time**
  - Date and Time recorded for the observation
  - Sorting: Yes
  - Frozen: No
- **Updated By**
  - User ID | First Name Last Name who made the updatation
  - Sorting: Yes
  - Frozen: No
- **Comments**
  - Comments recorded for the observation
  - Sorting: No
  - Frozen: No
  - Comments will be truncated and can be viewed fully the tooltip on hover

**Note:** Horizontal scroll is required to be able to navigate through all columns and visualize all data but always respecting the frozen columns.

- **Action Buttons:** View, Edit, Delete icons will appear next to each observation based on the user's permissions.
  - View - User can view observation details in read only mode
  - Edit - User can edit observation details
  - Delete - User can delete observation details. Deletion will be a soft delete.
- **Pagination Controls:** Navigation buttons to browse through multiple pages of records, if applicable (for more than 10 records).
- Rows Per page : Default 10, Dropdown values: 10, 20, 30, 40, 50

**Export Function:** The export function must extract ALL the information of the list of records shown based on the combined results of filter selection, sort and search criteria. as the following example:

Observation ID	Furnace ID	Observation Date & Time	Auto Collapse	Electrode - Auto Lining Width	Noise when Collapsing	Electrode Blows	Electrode Blowouts	Bed Crest Formation	Activity Homogeneity	Comments	Updated By

				en ess							
FB_6	1	04/07 /2025   07:15 AM	Yes	Wide	Roaring	Vertical	Yes	Gummy	Centre	Furnace operating well	sbadal   Sahana Badal
FB_5	12 3	03/07 /2025   04:40 AM	Yes	Wide	No Noise	Angle	No	Soft	Centre	fgyhfhtyj ftyjftyj	superuser   super user
FB_4	3	03/07 /2025   04:36 AM	Yes	Narrow	No Noise	Angle	No	Gummy	Centre	qwedwedw	superuser   super user
FB_3	31 24	03/07 /2025   04:36 AM	Yes	Wide	Roaring	Angle	No	Gummy	Centre	wedwde wedx	superuser   super user
FB_2	88 8	03/07 /2025   04:35 AM	Yes	Narrow	Roaring	Vertical	No	Gummy	Centre	wedwE Dwed	superuser   super user

FB_1	1	19/05 /2025   05:08 AM	Yes	Nar row	Roar ing	Vert ical	No	Gum my	Electr ode 3	nbnbb	sup er ser   sup er use r
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**Exported File Name:** “DDMMYY\_FurnaceBedLog”

**Customize Columns:** Users can enable or disable all columns based on their preference. Only the enabled columns will be visible in the list. Columns marked as ‘frozen’ will be enabled by default and cannot be modified.

## 2. Add Observation:

The **“Add Observation”** feature allows users to record key furnace bed conditions through a structured form. This functionality is accessed from the **Furnace Bed Log** screen and is designed to ensure that critical furnace behavior is captured in a standardized and validated manner.

**Header:** Add Observation | Close Icon

### Trigger and Access

When the user clicks on the **“Add Observation”** button located on the **Furnace Bed Log** screen, a **side panel** (slide-in form) will appear on the right side of the screen. This panel contains the observation entry form.

- **Furnace ID\*:**
  - User selects the furnace ID from a single select dropdown, for which the observation is to be made.
  - Mandatory - Yes
  - Default value - No
  - Field Type - Single Select Dropdown Values: All active furnaces
  - Validation - No
- **Observation Date and Time\*:**
  - A date-time picker for the timestamp of the observation.
  - Mandatory - Yes
  - Default value - Current Date and time
  - Field Type - Single Select Dropdown Values: All active furnaces
  - Validation - No
- **Auto Collapse\*:**
  - Mandatory - Yes
  - Default value - No

- Field Type - Radio Button
  - Values : Yes, No
  - Validation - No
- **Electrode – Auto Lining Wideness\*:**
  - Mandatory - Yes
  - Default value - No
  - Field Type - Radio Button
  - Values : Wide, Narrow
  - Validation - No
- **Noise when Collapsing\*:**
  - Mandatory - Yes
  - Default value - No
  - Field Type - Radio Button
  - Values : Roaring, No Noise
  - Validation - No
- **Electrode Blows Direction\*:**
  - Mandatory - Yes
  - Default value - No
  - Field Type - Radio Button
  - Values : Vertical, Angle
  - Validation - No
- **Electrode Crust Formation\*:**
  - Mandatory - Yes
  - Default value - No
  - Field Type - Radio Button
  - Values : Yes, No
  - Validation - No
- **Bed Conditions\*:**
  - Mandatory - Yes
  - Default value - No
  - Field Type - Radio Button
  - Values : Soft, Gummy Hard
  - Validation - No
- **Activity Homogeneity\*:**
  - Mandatory - Yes
  - Default value - No
  - Field Type - Radio Button
  - Values : Even, Center, Electrode 1, Electrode 2, Electrode 3
  - Validation - No
- **Comments\*:**
  - Mandatory - Yes
  - Default value - No
  - Field Type - User Input
  - Values : Even, Center, Electrode 1, Electrode 2, Electrode 3
  - Validation - All (Including special characters), no min, max 100 characters, space allowed

## Actions:

**Save** - Saves the record, user is returned to the observation list with a success message, and the new observation is displayed.

**Cancel** - No data is saved, side panel is closed immediately, and the user is returned to the main Observation List view.

## 3. Edit Observation

The **Edit Observation** feature allows users to modify an existing furnace bed observation through a side panel interface, similar in layout to the “Add Observation” form. This feature ensures users can correct or update recorded data while maintaining the integrity of the original furnace reference.

All previously entered fields are **pre-populated** and can be modified by the user, **except** for the **Furnace ID** This field is **non-editable** in edit mode to preserve the association between the observation and the originally selected furnace.

- **Furnace ID:**
  - Non-editable and pre-populated with the existing value.
  - Default value - No
  - Mandatory: Yes
- **Observation Date and Time**
  - Editable and pre-populated with the existing value.
  - Default value- Current Date and time will be displayed as default.
  - Mandatory: Yes
- **Auto Collapse**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **Electrode – Auto Lining Wideness**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **Noise when Collapsing**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **Electrode Blows Direction**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **Electrode Crust Formation**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes

- **Bed Conditions**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **Activity Homogeneity**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **Comments**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes

#### **Actions:**

**Save** - Saves the record, user is returned to the observation list with a success message, and the new observation is displayed.

**Cancel** - No data is saved, side panel is closed immediately, and the user is returned to the main Observation List view.

## 4. View Observation

The **View Observation** mode allows users to review the details of a recorded furnace bed observation in a **read-only side panel**. This panel presents all previously saved values in a non-editable format.

## 5. Delete Observation

Users with **edit permissions** can delete an each record observation from the list.

Clicking Delete opens a **confirmation popup** with **Cancel** and **Proceed** options.

Clicking **Proceed** deletes the observation, refreshes the list, and shows a **success message**.

The deleted record will no longer be visible in the list.