Changes to Routing UI (updated 02-10-24)

- Landing Page no changes
- When Part Selected, Open New Page with List of Routings available - Page 1
- If Part does not have routing ...
  - do not show grid ... show button Create New Routing
  - After Routing Name saved ... jump to Page 3 for entry of 1st Step of Routing
  - On Saving Page 3 contents take control back to Page 2
- If Part has routing
  - show grid
  - show Button Create New Alternate Routing
  - When Routing Selected open Routing Steps List in Page 2
  - When Routing Step No is selected in Page 2 show details in Page 3
- When page is closed using "x" take control back to previous page
- Create New Alternate Routing / Create Routing will call the same popup for Routing Name Entry (no change)

For Assembly Make from cell is kept blank
3 Dot

- View
- Edit
- Rename Routing
- Set as Preferred Routing
- Change Make From
- Create Alternate Routing from this Routing
- Change Status
- Delete

If In Current Prodn = Y then status change / delete not allowed
Delete will be visible only to Admin. Delete will be done after confirmation

Page 1

Routing List for Part No / Desc xxxx

X

Pref	Routing Name	Make from	No of Oprns	Mandatory Docs Avl	Status	Update Date	In Current Prodn	
y					Active		y	⋮
n					Inactive		n	

△
▽

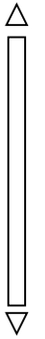
Create New Alternate Routing

Create New Routing

Continuation of Page from previous sheet

Routing Performance Comparison

Pref	Routing Name	# Inhouse Oprns	# Sub Con Oprns	Avg Inhouse Cycle Time (min)	# Oprns > Avg Cycle Time (min)	Total Inhouse setup Time (min)	Max Total Setup Time (min)	Batch Size Manf Time (Hrs) *
◯								
◯								



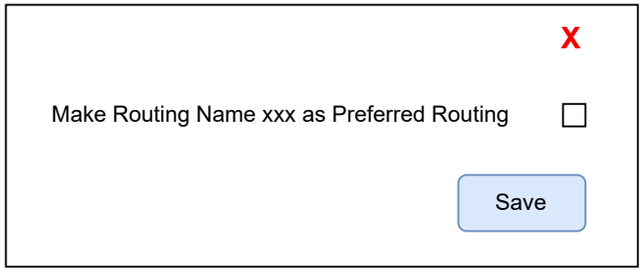
Batch Size 250 Calculate Batch Manf Time.

The above grid is view only
Batch size default = 250
Batch size is not stored in any table. It is for local representation

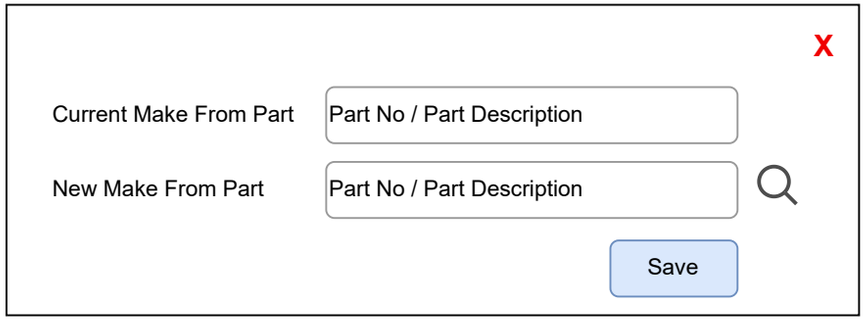
Last column allows User to see how many hours it would take to manufacture Batch size to allow quick performance comparison between different Routings

Batch Size Manf Time = Total of ((Batch size x Cycle time)/No of Machines running simultaneously + Setup Time) for each Routing Step.
Same logic to be used for subcon batch size time calculation

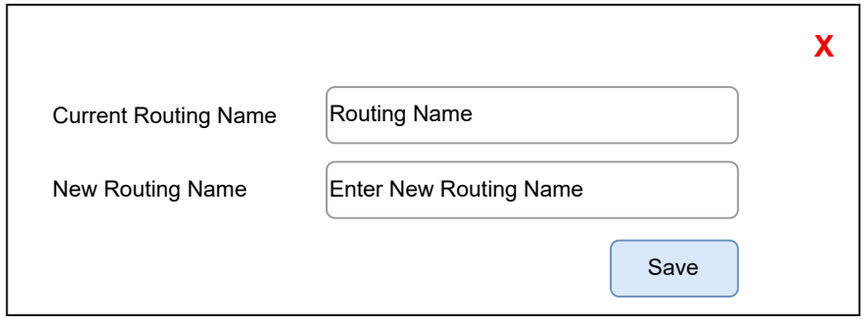
Popup for Set as Preferred Routing



Popup for Change Make From

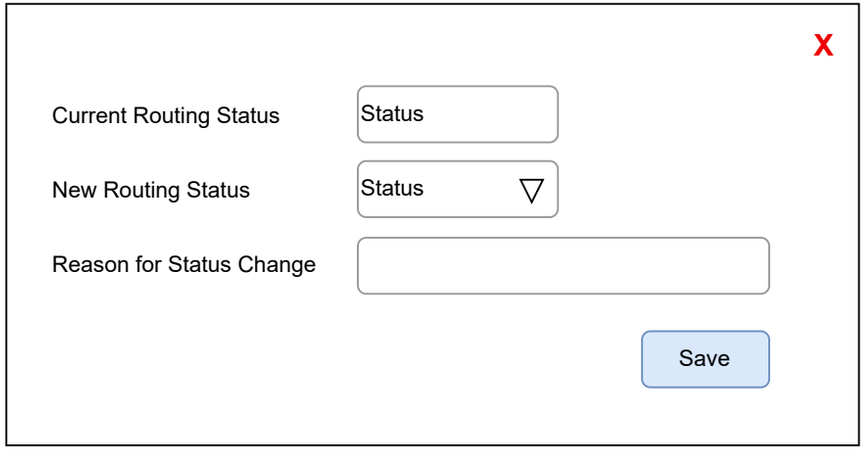


Popup for Rename Routing



Routing Name to be checked to make sure it is unique - case insensitve

Popup for Change Status



Routing Name to be checked to make sure it is unique - case insensitve

Details of Routing xxxxx for Part No / Desc xxxx made from Part No / Desc - Company xxx X

	Oprn No	Routing Step Description	Location	No of M/cs	Cycle Time (Min)	Setup Time (Min)	Mandatory Docs Avl	No of Parts Used in Step	Update Date	In Current Prodn	
=										y	⋮
=										n	
=											

= Slider to change sequence

All BOM Part Nos & BOM Qnty are used in Assembly

Add New Step

Shesha : Pl use a gird where the individual rows can be moved up or down (other than header)

Shankar we need to have the ability to show the visual sequence of the Routing steps
Internal Sequence No maintained in the Routing Table will be the same as what is displayed
If user moves the individual rows to change sequence, the same should reflect in the sequence nos for the Oprn Nos in the table

Responsibilityof updating the Opr No to reflect the change in sequence is with the User
Pl see if any simple interlock can be

3 Dot

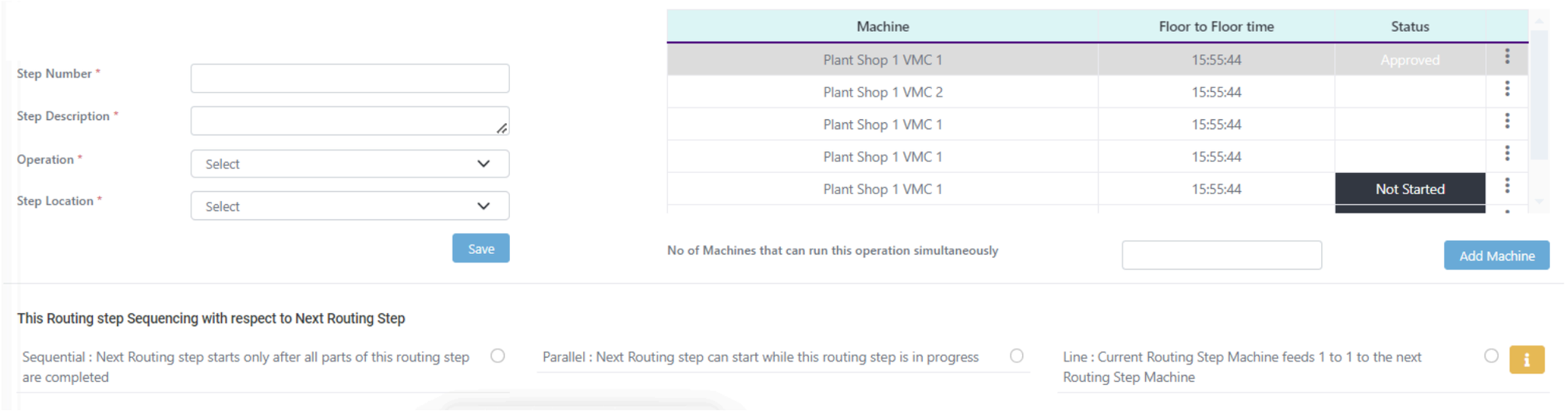
- View
- Edit
- Delete

Edit / Delete allowed only if for all Oprn No - In Current Prodn = N

Message to be displayed for Part Type = Assy
Nothing is displayed for Part Type = Child Manf Part

- If all BOM Part Nos & BOM quantity is consumed / used across all Opr No then display "All BOM Part Nos & BOM Qnty are used in Assembly"
- If all BOM Part Nos are not used in Assembly across all Opr Nos then display "All BOM Part Nos are not used in Assembly" in Red
- if all BOM Qnty are not used across all Opr Nos then display " All BOM Qntys are not used in Assembly
- It is possible to show both error msgs

Details of Oprn No xxx of Routing xxxxx for Part No / Desc xxxx made from Part No / Desc - Company xxx X



Associate BOM Parts Assembled / Used in this step

Retain Routing Step Data entry screen same as before
Below this the Reference Documents for Routing Grid will be shown - continuation of same page

Associate BOM Parts Assembled in this Step Button to be made visible only for Part Type = Assembly
This will open new popup

Add Machine will open in the popup ... same as before

Details of Oprn No xxx of Routing xxxxx for Part No / Desc xxxx made from Part No / Desc - Company xxx

X

Step Basic Info.

Step No *: Enter Unique Step No

Step Description *: Enter Step Desc

Operation *: Operation ▽

Step Location *: Operation ▽

No of Mcs that should run simultaneouly *: No of Mcs

This Routing Step seqencing with respect to next Step * ▽

Save

Machine List for this Step

Pref	Machine / Location	Cycle Time min	Setup time min	Mandatory Docs Avl	
○					⋮

3 Dots
Edit
Delete
Make Preferred Mc

Call Popup in next page for Make Pref

Add Machine

Call old Popup

List of Parts assembled in this step

Part No / Desc	Qnty Used	
		⋮

3 Dots
Edit
Delete

A

Add BOM Parts Assembled / Used in this step

Call old Popup

Reference Documents for Routing

Replace Document Accordian with this content - No Accordian

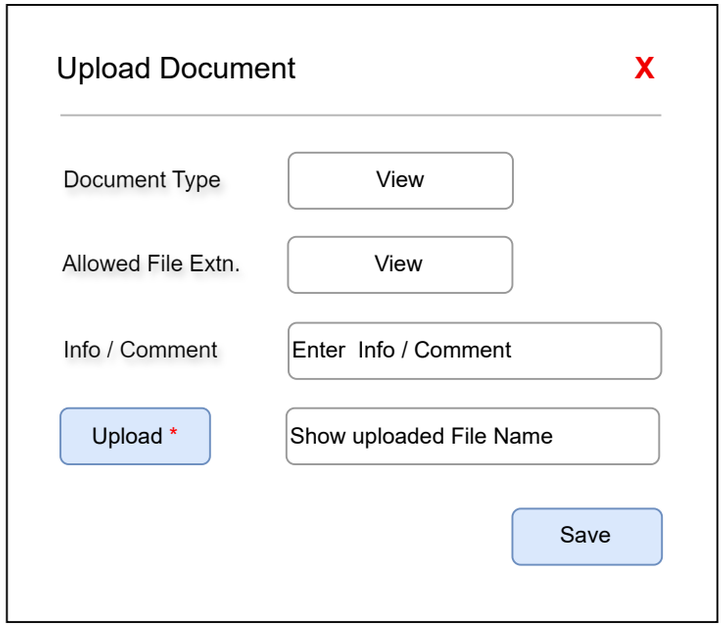
Document Type	Mandatory	Info / Comment	Uploaded by	Uploaded on	View	Down load	
	y				👁	⬇	⋮

△ ▽

3 Dots
Upload
Edit
Delete

Upload Other Related Documents

When Upload button is pressed the popup below is opened.
Document Type = Others



At time of first entry
- Document Upload is allowed only after above Information is saved
- All Document types associated with the Operation will shown in the rows
- 3 Dots will display upload only
- Upload other related documents button will be visible / will allow documents other than in the list to be uploaded

After First Entry
- For Doucment Upload Mandatory = Y ... 3 dots will have only Edit (no delete)
- For Document Upload Mandatory = N .... 3 Dots will have Edit & Delete
- Upload other related documents button will be visible / will allow documents other than in the list to be uploaded

View will show Document Viewer in popup ... Download will open file explorer popup

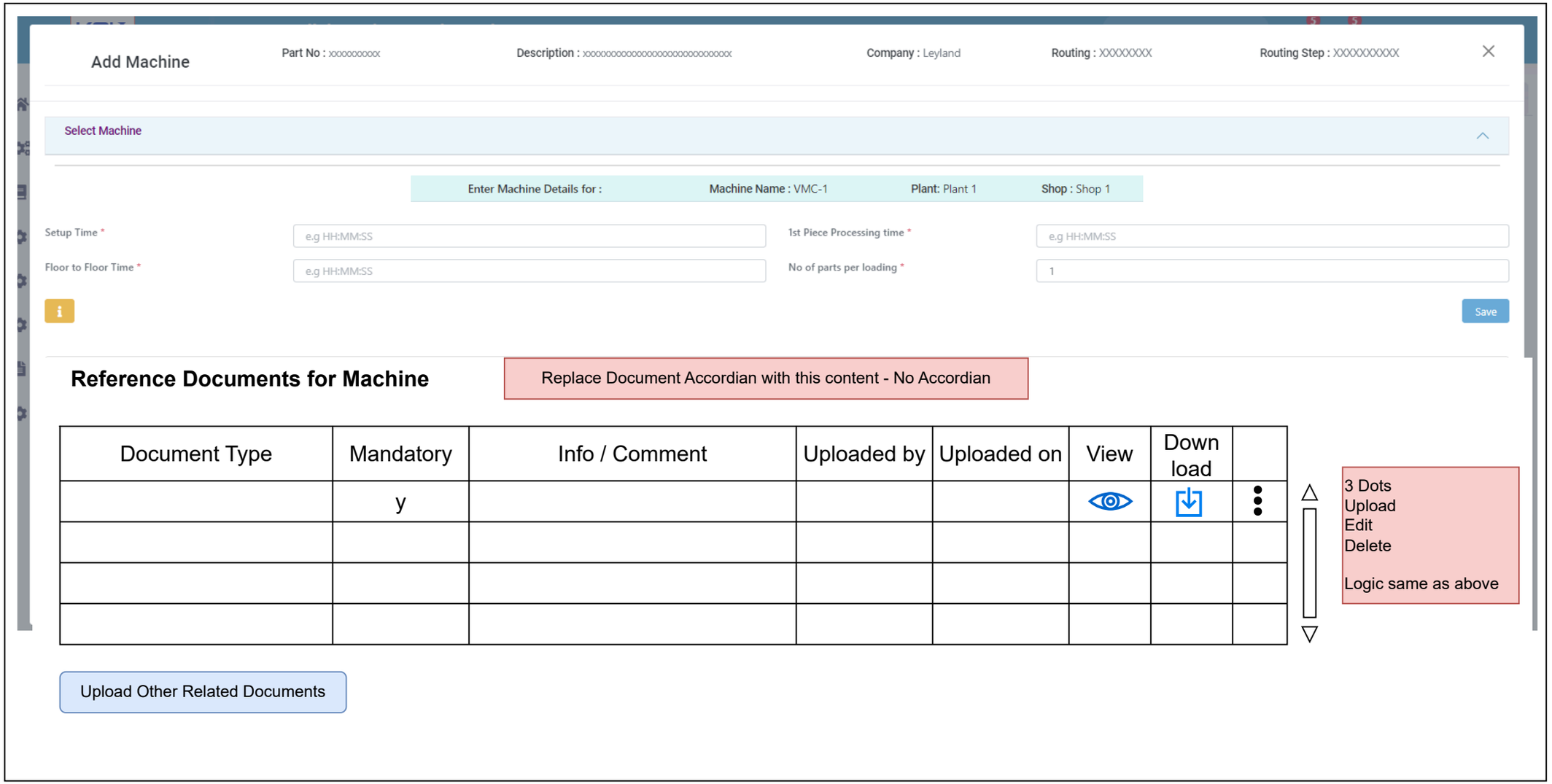
- Document Type is pre filled by the Upload, Edit or Upload Other Related Documents
- File Extensions allowed are shown as concatanated string in the view field
- Info Comment is mandatory for Document Type = Others
- For Document Type = Others there is no check on the File Extension
- Upload function should check if uploaded file matches allowed extension (for other than "Others"). If not warning message to be shown - Uploaded file does not match allowed file extension. Pl check and upload
- Upload will show file only to indicate the file selected
- Save will be executed only when above conditions met
- On saving, Reference Documents for Part Grid is updated with the fields
- All other fields of Docu_List table are to be updated with available information

A

For Part Type = Assy both grids will be shown
For Part Type = Child Manf Part only Mchine List Grid will be shown

Popup for Set as Preferred Routing

Popup for Add Machine Data Entry



Shesha : Pl adjust the data entry fields for width to make it look more proportional

Popup for Associate BOM Parts Assembled / Used in this step

Parts Assembled in Oprn No xxx of Routing xxxxx for Part No / Desc xxxx made from Part No / Desc - Company xxx

X

Select parts for Assembly from BOM

	Part NO	Part Description	BOM Qnty	Bal Qnty for Assembly
○	N2219c-1-1	Turbine	5000	5000
○	Part-2	Lorem Ipsum is simply dummy text of the printing and typesetting industry.	5000	5000
○	Part-3	Lorem Ipsum is simply dummy text of the printing and typesetting industry.	5000	10000
○	Part-4	Lorem Ipsum is simply dummy text of the printing and typesetting industry.	5000	10000

Select

Part No N2219c-1-1

Part Desc Lorem Ipsum is simply dummy text of the printing and

Qnty for Assy Qty

Add to List

List of parts Assembled in Current Assy Step

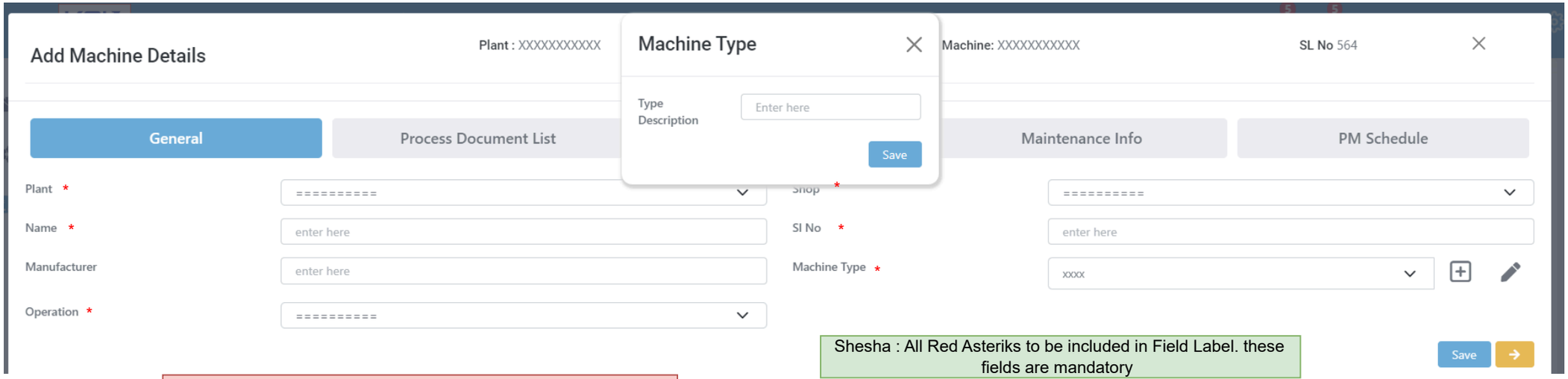
Part NO	Part Description	Qnty used	
N2219c-1-1	Turbine	5000	⋮
N2219c-1-1	Lorem Ipsum is simply dummy text of the printing and typesetting industry.	5000	⋮
N2219c-1-1	Lorem Ipsum is simply dummy text of the printing and typesetting industry.	5000	⋮
N2219c-1-1	Lorem Ipsum is simply dummy text of the printing and typesetting industry.	5000	⋮
N2219c-1-1	Lorem Ipsum is simply dummy text of the printing and typesetting industry.	5000	⋮

Shankar : Process Document List Tab in Machine list has to be activated for the Documents to be uploaded when Mc in is selected in Routing Step

Like what has been done with Item Master where we can assoicate Document Type with Item Master type ... same thing has to be done with Machine Type. If this is not done, then for each machine we would have to associate all the common documents each time a machine is added or edited

Document Association is embedded in the Machine Type definition popup

Shesha : This change needs to be done in Machine List



Shesha : All Red Asteriks to be included in Field Label. these fields are mandatory

Replace above existing M/c Type Popup wiht this Popup

*

Machine Type

X

Machine Type Description | Enter Mc Type Desc | Save

Documents Types to be uploaded for this M/c Type

Document Type Name * | Document Type ▽

Document Upload Mandatory ☐

Add to List

Document Type	Mandatory	
	y	⋮
	n	

△ ▽

Add to List Button does the job of saving the Document Type selected to the table
If selection already exists in the table, no action

3 Dots
Edit
Delete

Edit will load selected content to the fields to the right

Shankar : The Document Types associated with Machine Type are automatically populated in the Document List for the specific Machine. these rows cannot be deleted. Additionally if specific mc required document type, it can be added in this Tab