

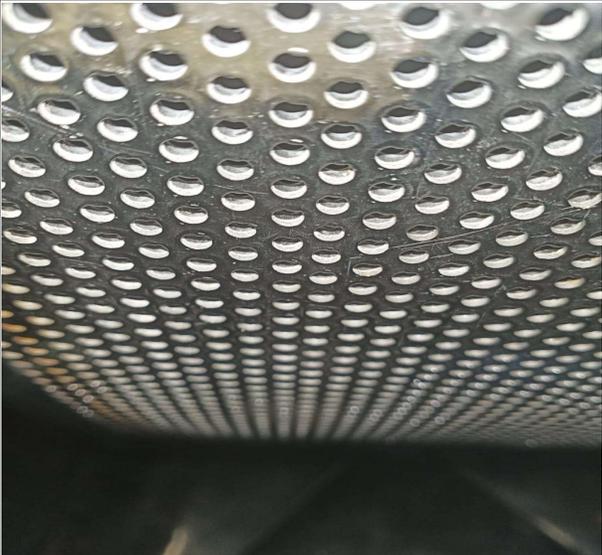
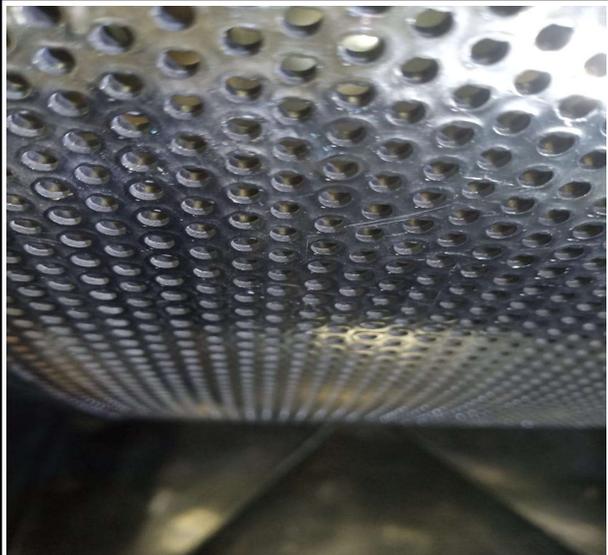
CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Filter plate	 A photograph of a circular perforated metal filter plate inside a stainless steel vessel. The plate is heavily fouled with a thick, brownish, crystalline deposit. A red oval highlights a specific area of the deposit.	 A photograph of the same circular perforated metal filter plate after cleaning. The surface is clean, shiny, and free of the brownish deposit. A red oval highlights the same area as in the 'Before' image, showing the clean metal.
Davit arm	 A close-up photograph of a horizontal stainless steel pipe (davit arm) showing significant surface corrosion and a dark, rust-like deposit. A red oval highlights a section of the pipe.	 A close-up photograph of the same horizontal stainless steel pipe after cleaning. The surface is smooth, bright, and free of corrosion. A red oval highlights the same section of the pipe.
Manufacturing Skid	 A photograph of a stainless steel manufacturing skid with a circular lid. The lid and surrounding area are covered in a thick, brownish deposit. A red oval highlights a portion of the deposit.	 A photograph of the same manufacturing skid after cleaning. The lid and surrounding area are clean and shiny. A red oval highlights the same portion of the lid.

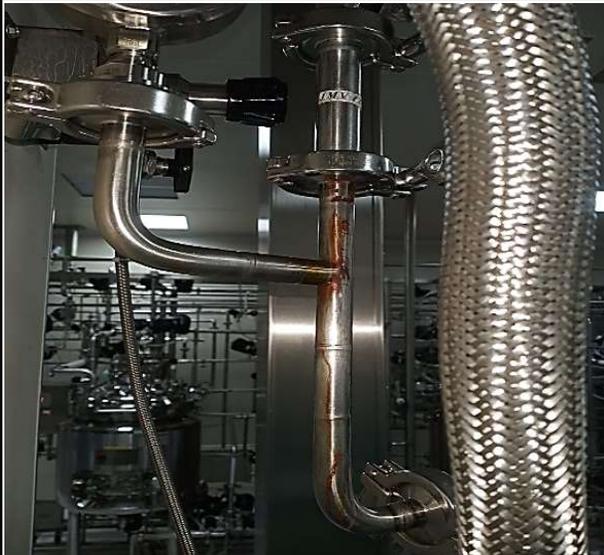
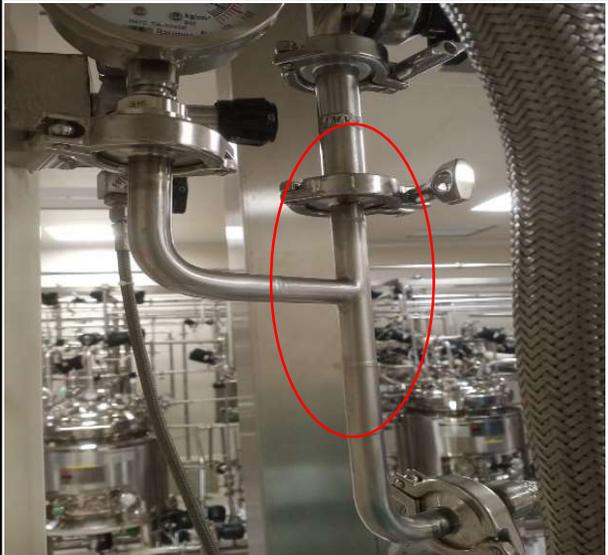
CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Reactor Man-hole		
Skid		
Reactor Vessel		

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Utility skid pipe Ffange	 A photograph of a utility skid pipe flange before cleaning. The metal surface is heavily corroded and covered in a thick, brownish-orange scale. A red circle highlights the central area of the flange.	 A photograph of the same utility skid pipe flange after cleaning. The metal surface is now bright and shiny, with the corrosion removed. A red circle highlights the same central area, showing the significant improvement in cleanliness.
Tablet coating Pan	 A close-up photograph of a tablet coating pan before cleaning. The perforated metal surface is covered in a thick, dark, crusty residue, obscuring the holes.	 A close-up photograph of the same tablet coating pan after cleaning. The perforated metal surface is clean and free of residue, with the holes clearly visible.
Filter housing	 A photograph of a filter housing before cleaning. The top surface is covered in a thick, white, powdery residue.	 A photograph of the same filter housing after cleaning. The top surface is clean and free of residue. A red circle highlights a specific area on the top surface.

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Utility Piping	 A photograph of industrial utility piping. The pipes are heavily corroded, showing a dark, reddish-brown patina. A red oval highlights a section of the vertical pipe.	
 A photograph of the same utility piping after cleaning. The pipes are now bright and shiny, indicating successful cleaning. A red oval highlights the same section of the vertical pipe, showing a significant improvement in appearance.		
Hot water pipe	 A photograph of a hot water pipe with a 90-degree elbow. The pipe is heavily corroded and discolored. A red oval highlights the elbow joint.	
 A photograph of the same hot water pipe after cleaning. The pipe is now clean and shiny. A red oval highlights the same elbow joint, showing the removal of corrosion.		
Powder handling equipment	 A photograph of a large stainless steel powder handling vessel. The surface is dull and shows signs of corrosion. A red oval highlights a section of the side panel.	
 A photograph of the same powder handling vessel after cleaning. The surface is now bright and reflective. A red oval highlights the same section of the side panel, showing the restored finish.		

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Reactor wall		
Epoxy floor-Peracetamol powder traces		
Centrifugal pump		

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Powder handling scoop	 A photograph of a stainless steel powder handling scoop. The rim and the area where the handle meets the bowl are heavily contaminated with a white, crystalline powder residue.	 A photograph of the same powder handling scoop after cleaning. The white residue has been removed, and the metal surface is clean and reflective. A red oval highlights the rim area, showing the absence of the previous contamination.
Tablet punch	 A photograph of a cylindrical stainless steel tablet punch. The top edge and the side of the cylinder are covered in a brownish, rust-like corrosion product.	 A photograph of the same tablet punch after cleaning. The brown corrosion has been completely removed, and the metal surface is clean and shiny.
Autoclave tool	 A photograph of a flat, rectangular stainless steel autoclave tool. The surface is dull and covered with a fine, brownish corrosion product.	 A photograph of the same autoclave tool after cleaning. The surface is now bright and reflective, with all the corrosion removed.

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Vessel		
Skid		
Storage Tank		

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Vessel attachments		
Clean room panel		
Epoxy floor		

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Wash area		
Platform stand		
Washing machine		

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Washing machine	 A photograph showing the interior of a washing machine. The metal drum is heavily covered with a thick, brownish, rust-like residue. The floor of the machine is also covered in a white, foamy cleaning agent.	 A photograph showing the same washing machine interior after cleaning. The metal drum is now clean and shiny. A red oval highlights a section of the drum that was previously covered in residue.
Ink-Epoxy floor	 A photograph of a light-colored epoxy floor. A large, irregular purple ink stain is visible in the center. There are also several smaller blue ink spots scattered across the surface.	 A photograph of the same epoxy floor after cleaning. The purple ink stain has been completely removed, and the floor is clean. A red oval highlights the area where the stain was.
Tiles floor	 A photograph of a tiled floor. The tiles are heavily stained with a dark, brownish residue, likely from a spill. The staining is most prominent in the center and right side of the frame.	 A photograph of the same tiled floor after cleaning. The dark residue has been removed, and the tiles are clean. A red oval highlights a section of the floor that was previously stained.

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Reactor surface		
Manufacturing tank		
Bucket in production area		

CASE STUDY OF CLEANING AND PASSIVATION

Component/Item	Before Cleaning	After Cleaning
Welding joint-utility line		