



Definition

Checking and testing of equipment and construction to confirm that the installation is in accordance with drawings and specifications and ready for pre-commissioning **OR** commissioning in a safe manner and in compliance with project requirements.

Please remember!

Can vary from client to client and plant to plant!

As per contract!



Example 2

- Planning
- P&ID Checking
- Pre-Commissioning
- Commissioning
- Start-Up
- Initial Operation
- Performance Test
- Post Commissioning

1. MC - Mechanical Completion

- = Construction Completion
- = Ready for Pre-Commissioning
- Construction & Commissioning Team
- Construction, Hydro Testing & Mechanical Completion Testing done



Example 1

- Planning
- P&ID Checking
- Pre-Commissioning
- Commissioning
- Start-Up
- Initial Operation
- Performance Test
- Post Commissioning

2. MC - Mechanical Completion

- = Ready for Pre-Commissioning
- Construction Team
- Construction & Hydro Testing done
- = Ready for Commissioning
- Construction & Commissioning Team
- Construction, Hydro Testing, Mechanical Completion Testing & Pre-Commissioning done

What is included?

Can vary from client to client and plant to plant!

As per contract!

Typical Tasks

Mechanical

- Visual inspection for complete and correct installation
- Verification of name plate details at tanks, vessels, rotating equipment and other machines
- Internal inspection of tanks and vessels
- Hydrostatic test of vessels and tanks
- Vendor representatives for large and/or complicated equipment
- Dimension control
- Bolt tensioning
- Preservation

Piping

- NDT done (nondestructive testing)
- Pipe supports completed
- Removal of all items subject to damage during flushing, cleaning and pressure testing
- Blowing
- Flushing
- Chemical cleaning
- Drying
- Preservation
- Reinstatement
- Bolt tensioning
- (Insulation)
- (Flow coding)

Structural

- Inspection of all supporting structure

Electrical

- Inspection
 - Cable trays
 - Cable tray supports
 - Cable tray fill
 - Cables
 - Bend radius
 - Wiring
 - Termination
 - Grounding
- Megger testing
 - Cable trays
 - Cable tray supports
 - Cable tray fill
 - Cables
 - Bend radius
 - Wiring
 - Termination
 - Grounding

Instrumentation

- Validation of instruments
- Validation of valves
- Loop checks
- Flushing of tubing
- Tightness test of tubing