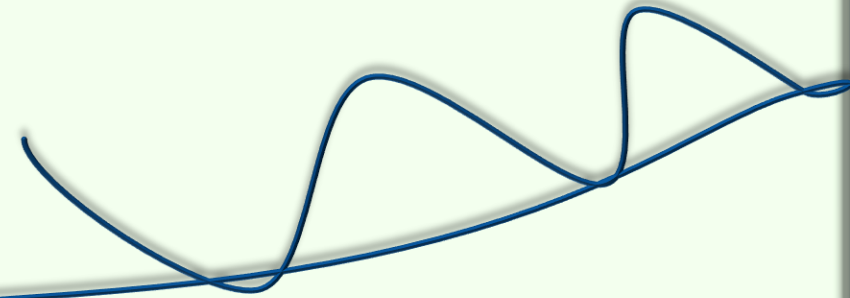


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❖BIW WELDING FIXTURE DESIGN



What is fixture?

Fixture is setup or device to locate & hold component at designed position for operations such as welding, machining, etc..





Requirement of fixture in industry?

Fixture is used for...

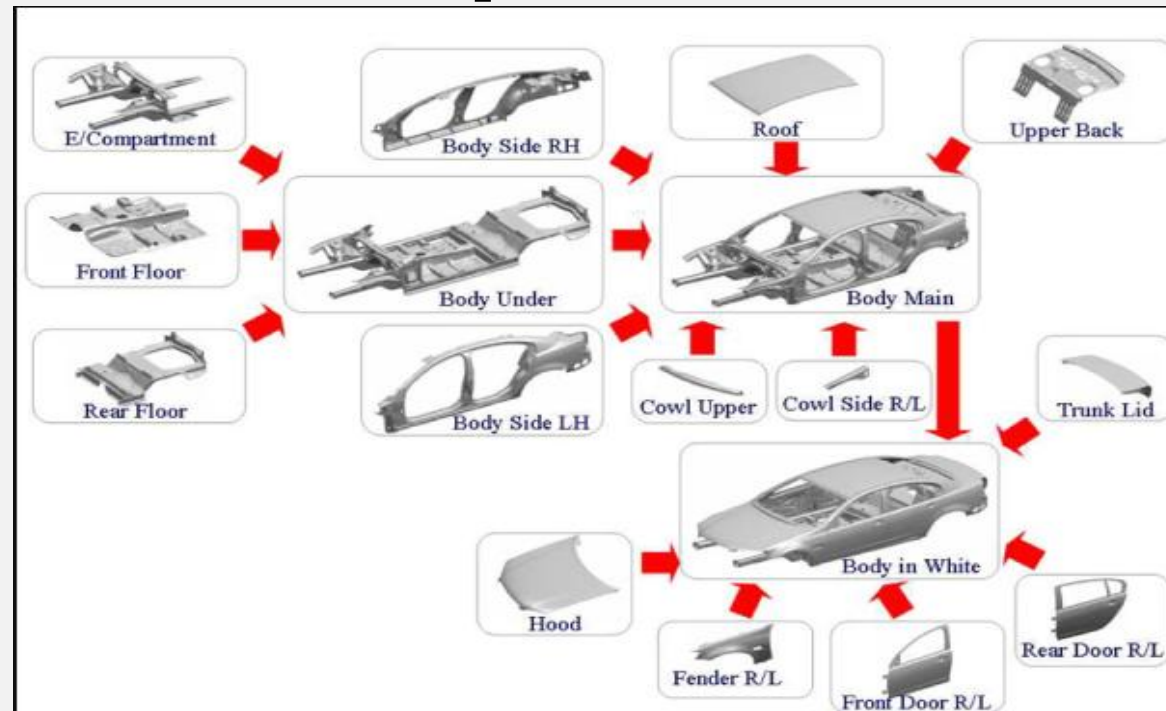
- Increase production rate
- Improve accuracy
- Less rejection
- Multiple jobs can perform on same setup.
- Reduce human interference
- Automation



What is BIW?

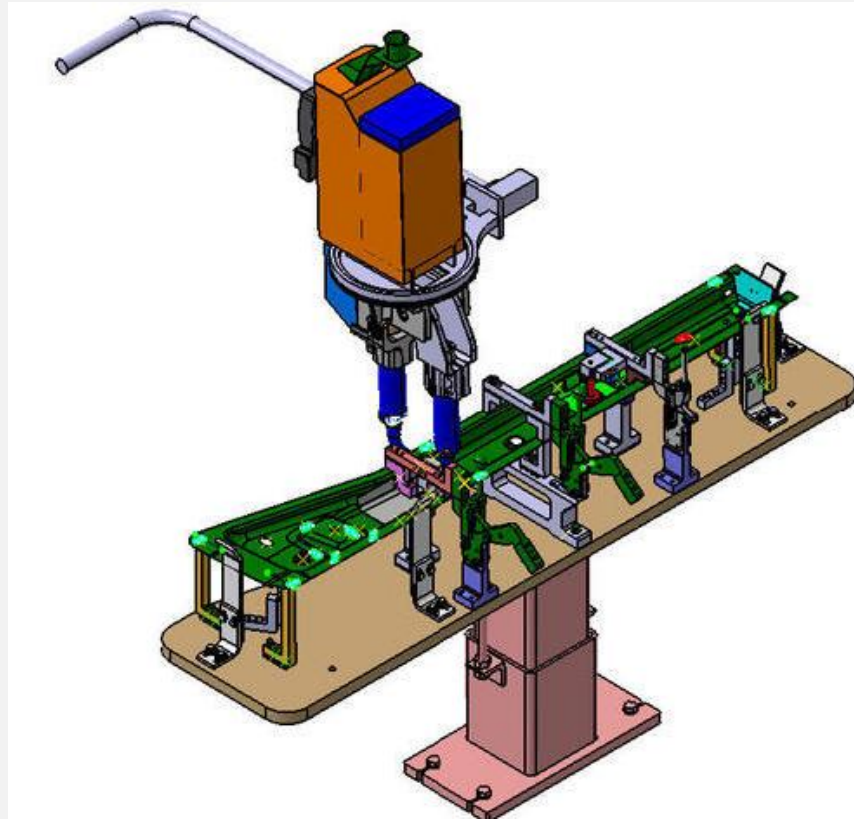
BIW is related with automobile sector. BIW stands for **Body In White**. It's car body shell before paint refer as BIW. There are many parts such as, underbody, upper body, doors, hood, front end, tailgate, fender, wheel arc, suspension tour., etc..

BIW welding fixture is set up to assemble and weld all parts to create BIW.

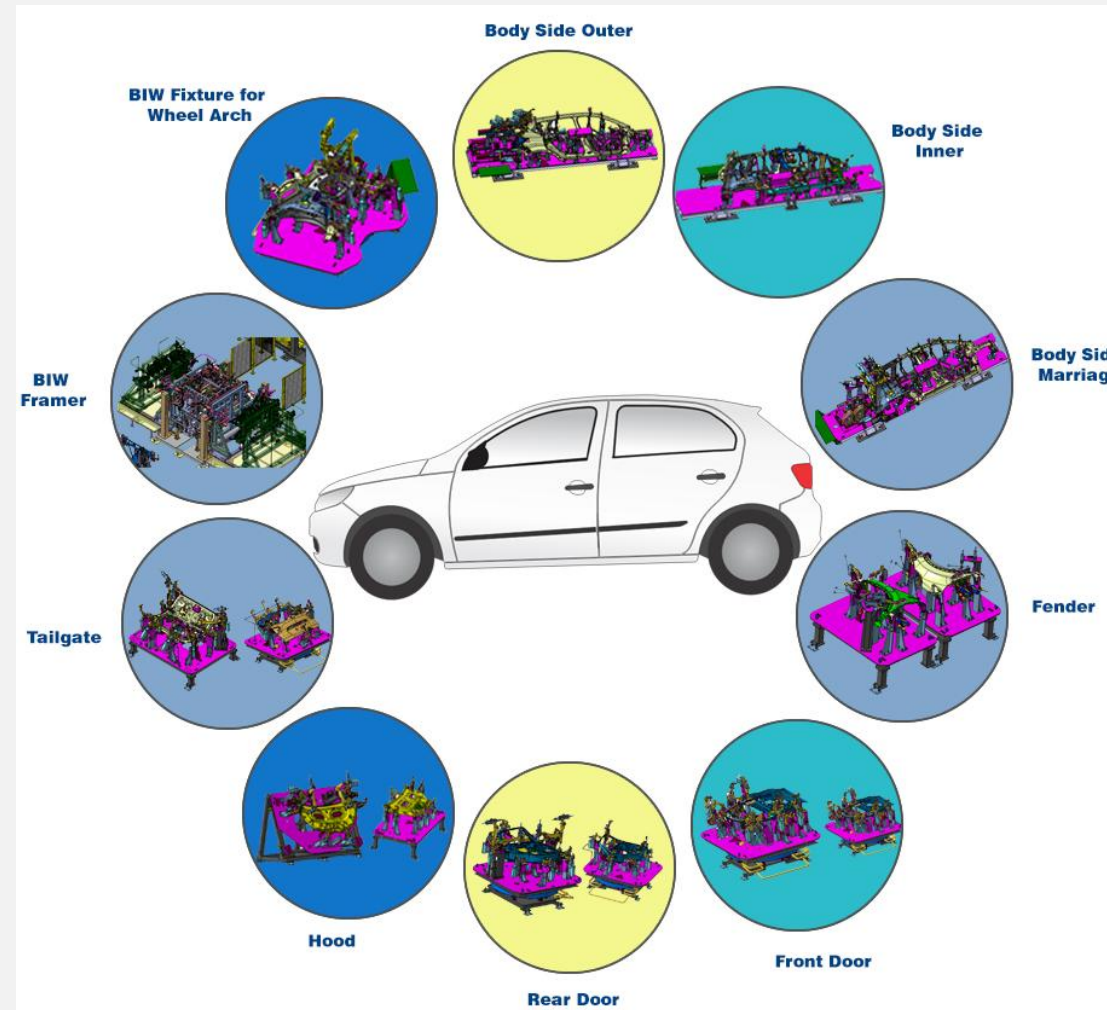


What is BIW welding fixture?

BIW welding fixture is set up to weld all sheet metal parts to form a vehicle structure. Then this structure will be married with other component i.e., engine, chassis, exterior and interior trim to complete the vehicle.



Car building phases?





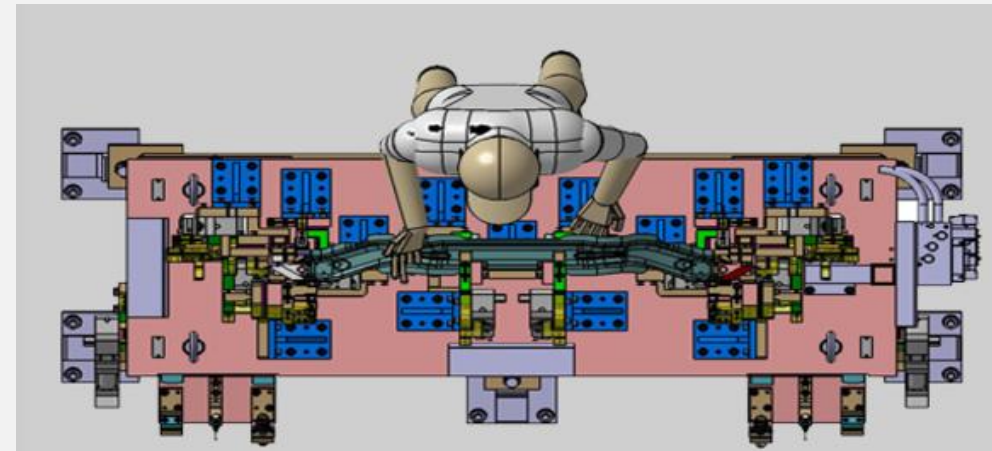
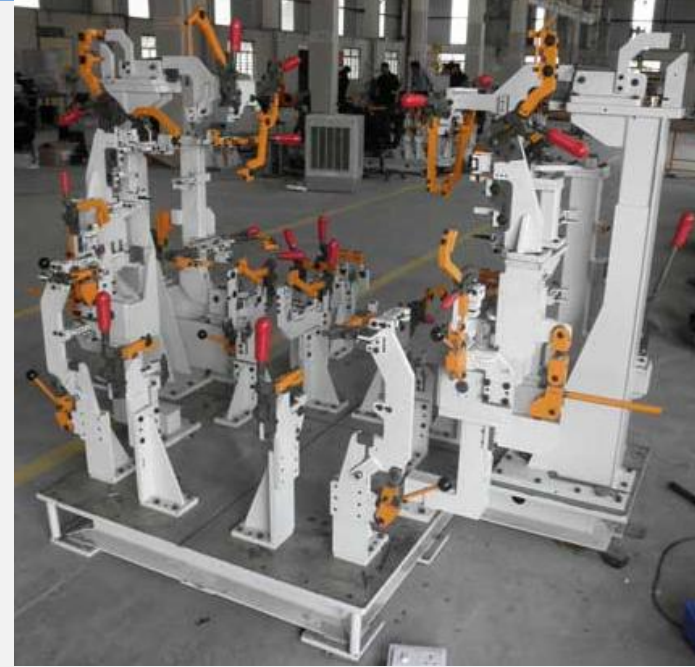
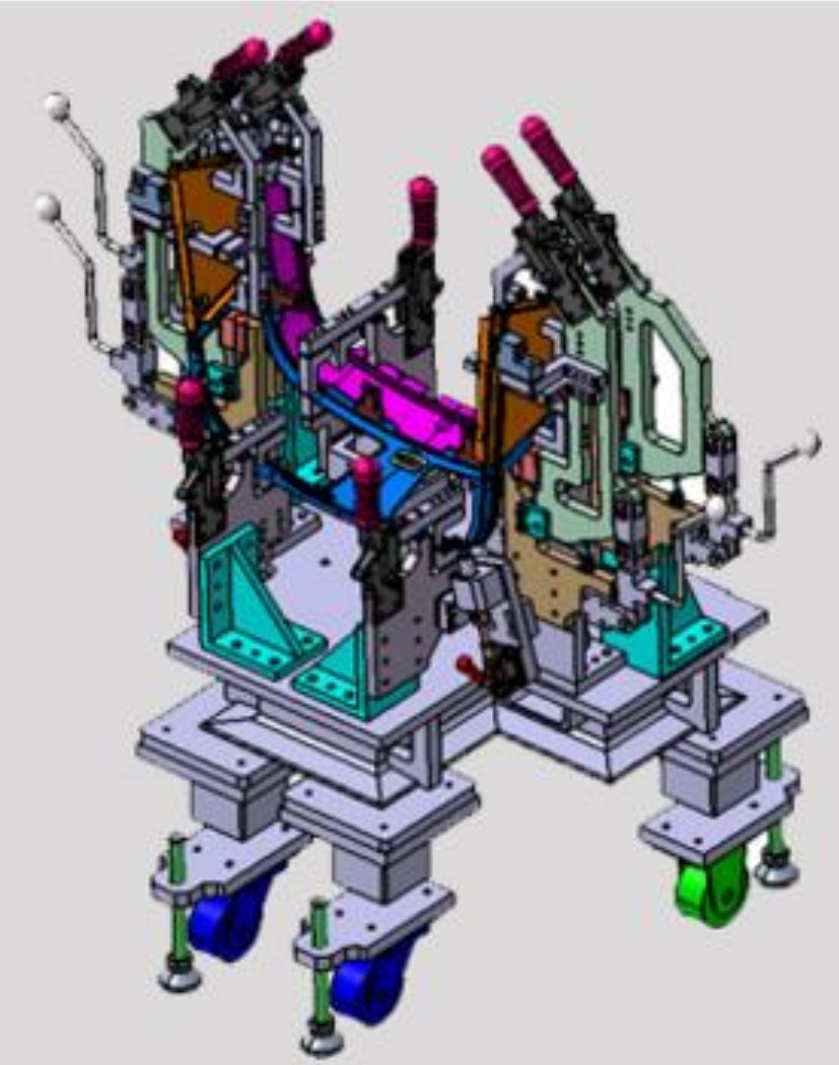
Why BIW fixture Design?

Automotive industry is growing very fast, this is field where you can use your maximum core domain knowledge, like

1. Study of customer requirement
2. Designing
3. Detailing (Tolerance stack up)
4. Manufacturing process (Welding, Milling, Grinding, Drilling, Water jet cutting, Hardening process)
5. Volumetric Space utilization
6. Material selection & saving
7. Hydraulics & pneumatics
8. Kinematics
9. Layout design
10. Aesthetic & Ergonomics
11. Safety features.
12. Programming
13. 70-80% budget of project use in line building, more chance to save money.
14. Time management



Examples





Thank you for your attention

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