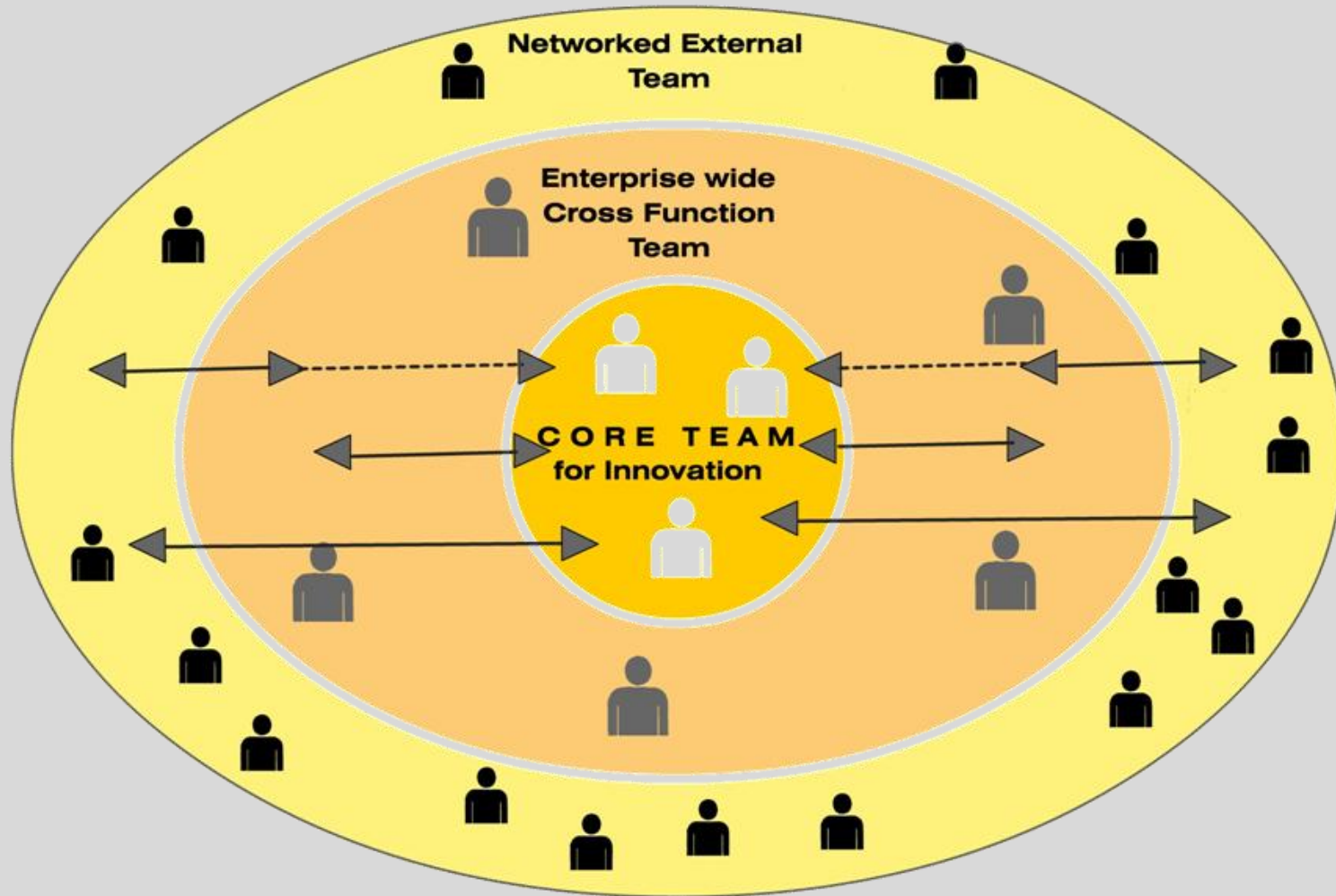


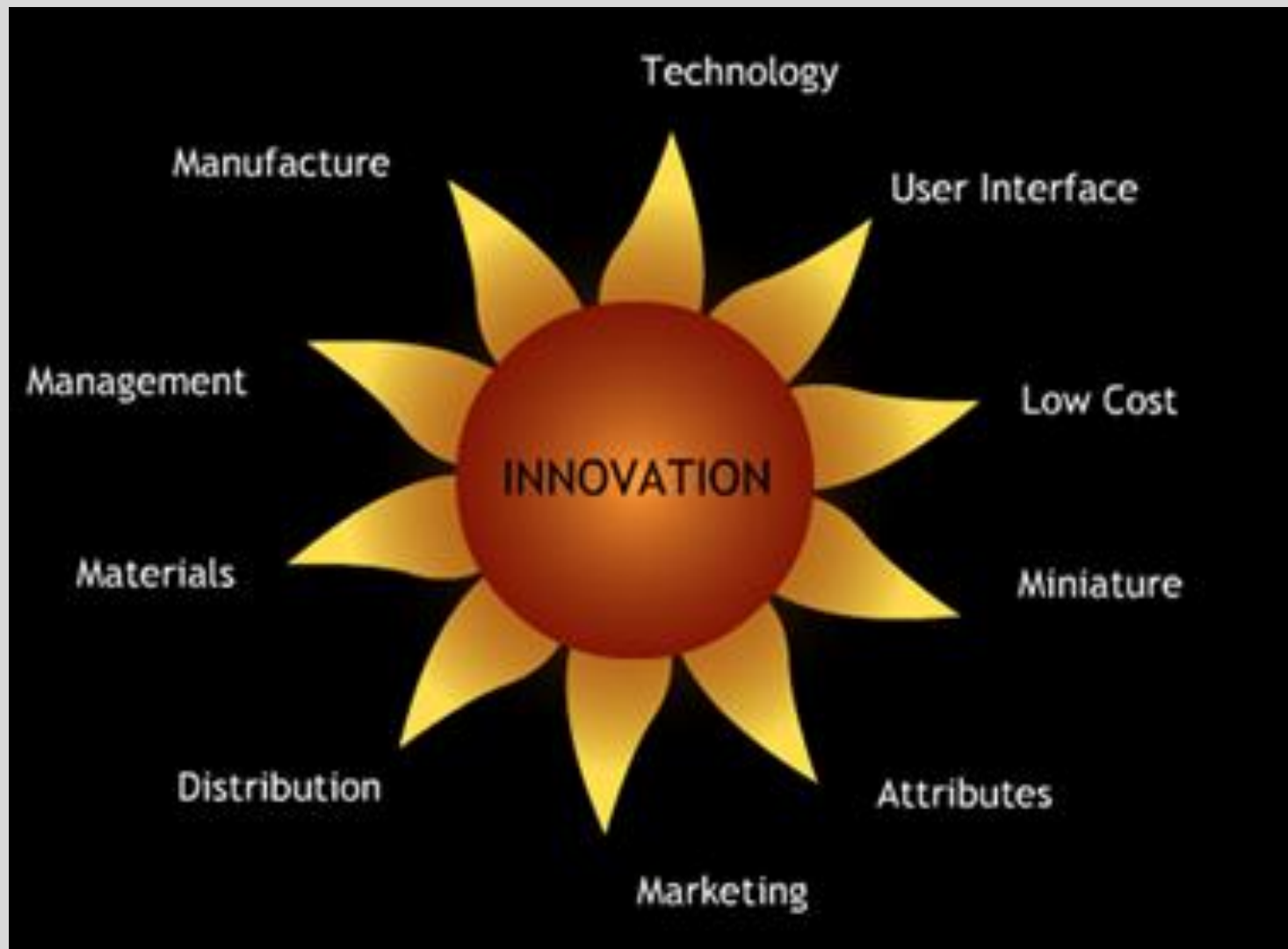


Serial Innovation in Fuel Dispensers

1. Z-Line (1989)
2. Bullet (1998)
3. **MPD (2002)**
4. Oval (2005)
5. SureFill (2008)

Collaborative Innovation Model







Design of MIDCO MULTI PRODUCT DISPENSERS - MPD (2001)

by Prof. B. K. Chakravarthy as
Design Consultant to MIDCO

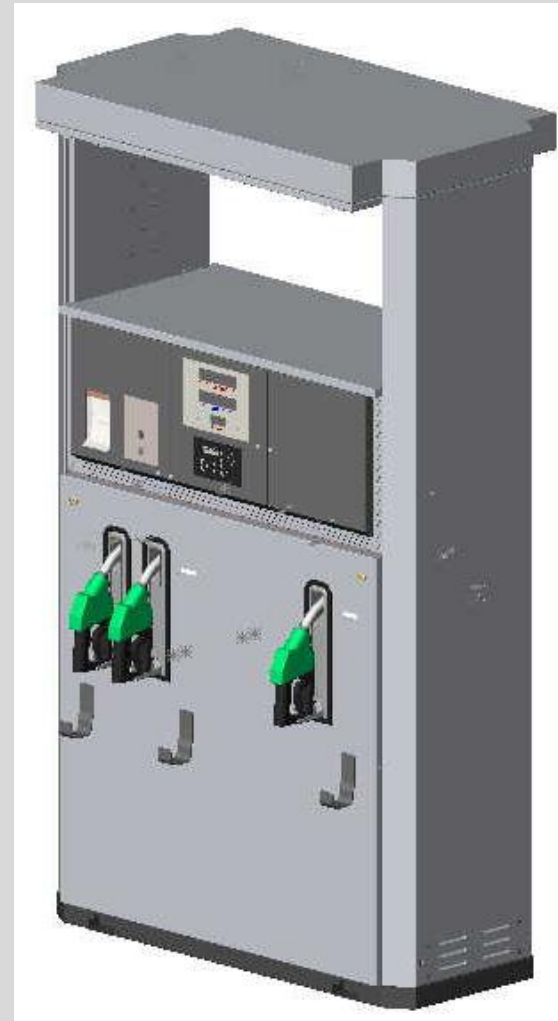
Design Credits - ManojDubey

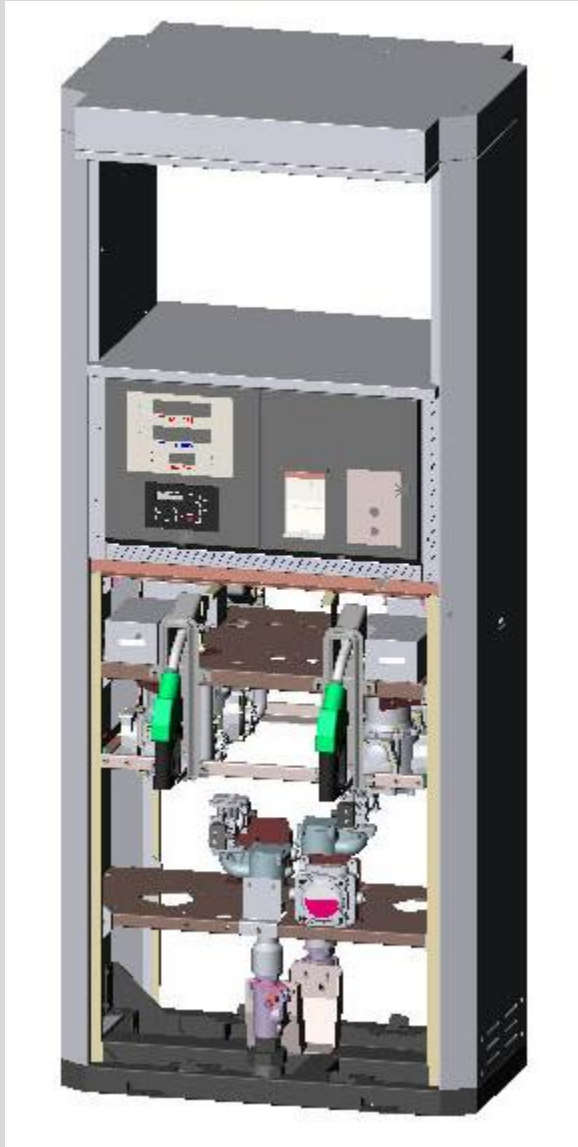
MPD

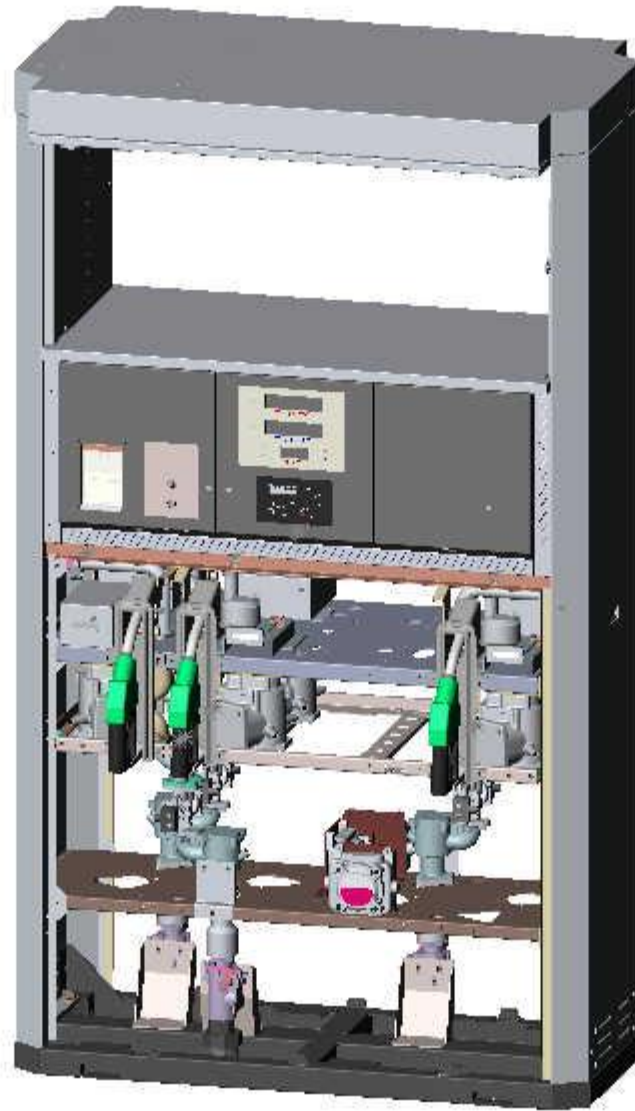
- Multi Product from same pump
- Saves space
- Convenient to user
- Uses single display
- Both sides dispensing
- Can be used by submersible pumps



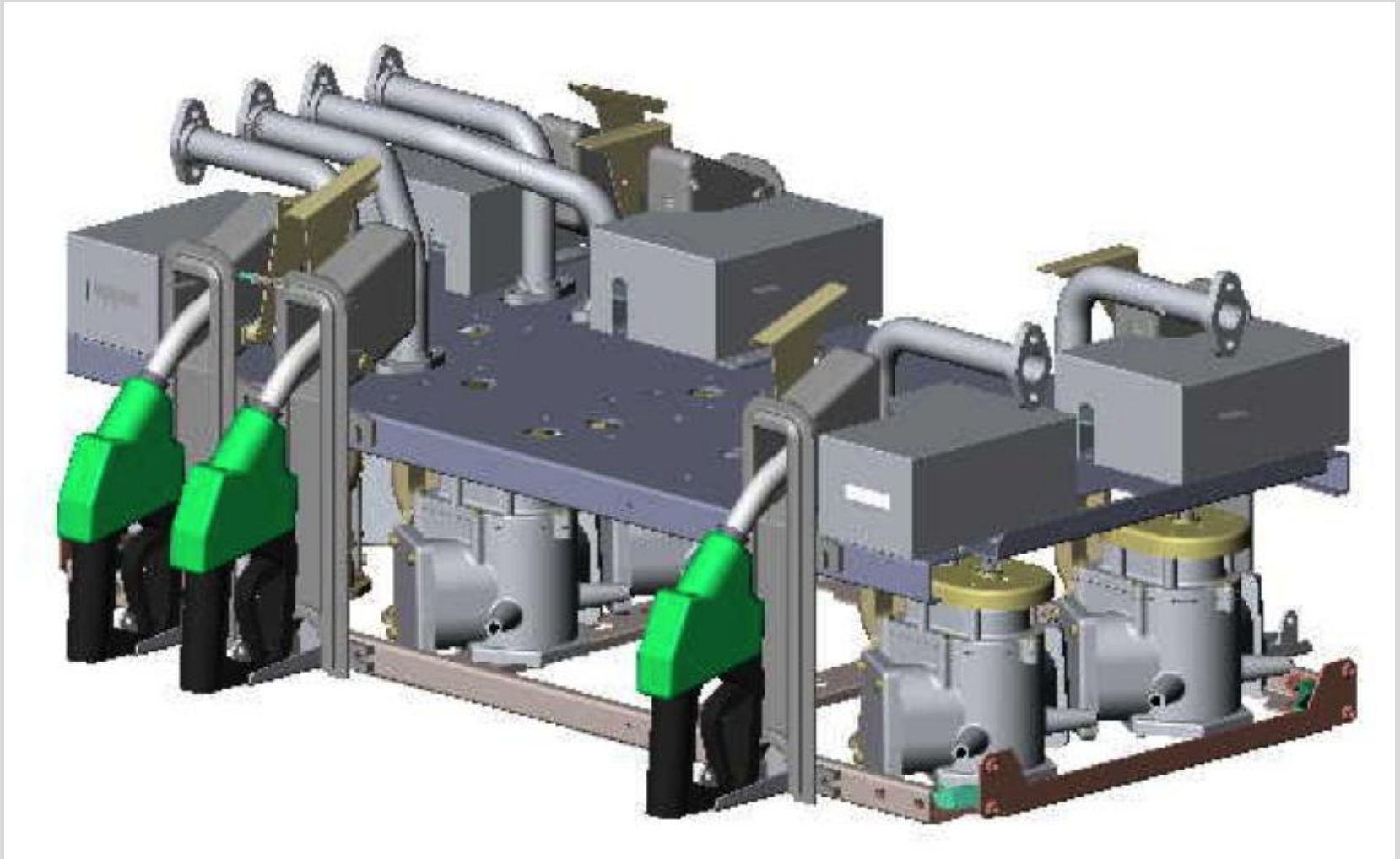
Customer Requirement



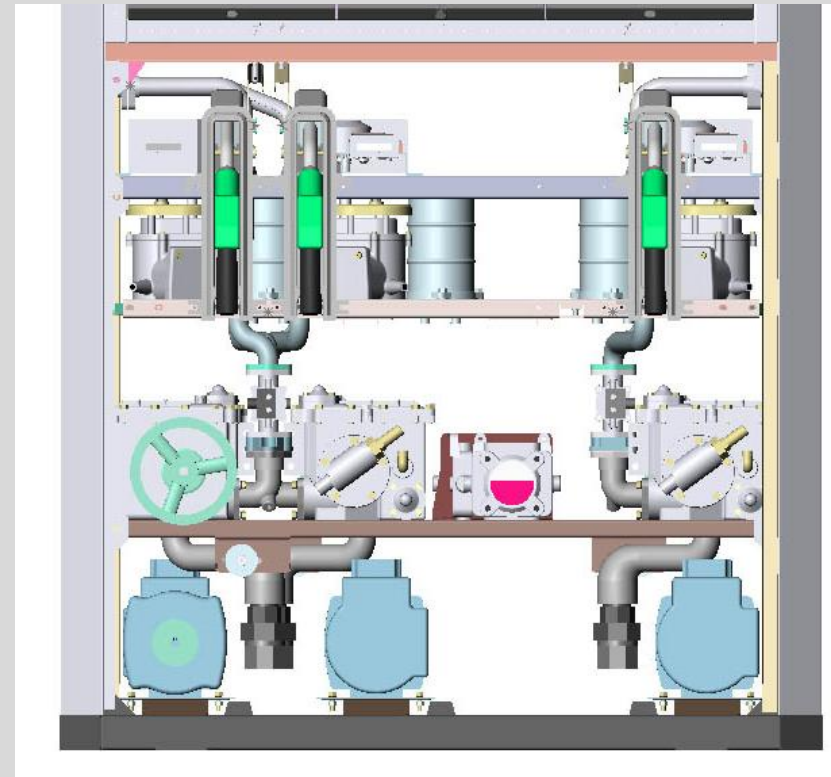
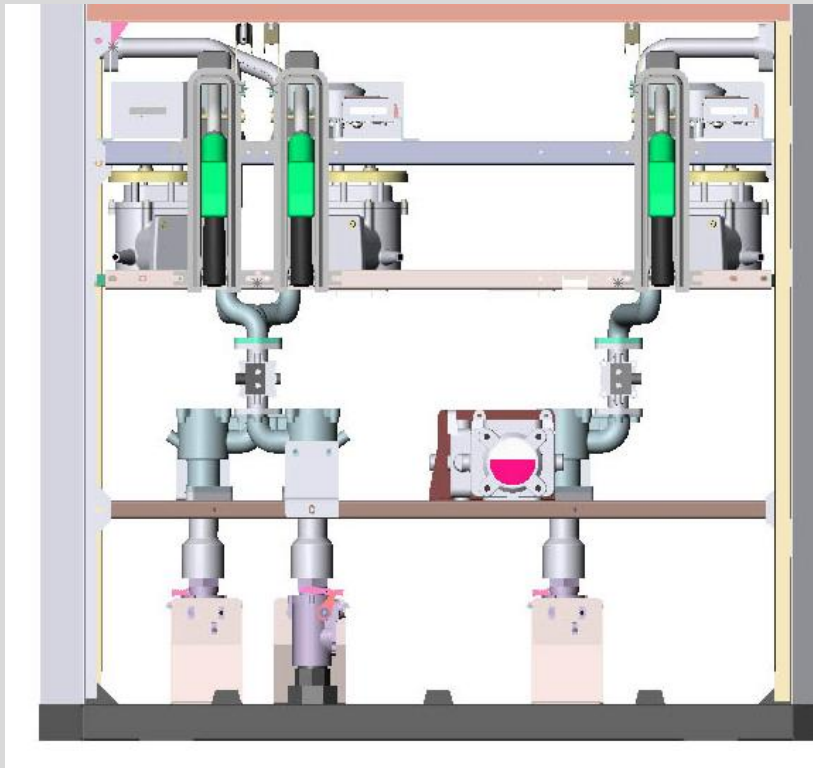




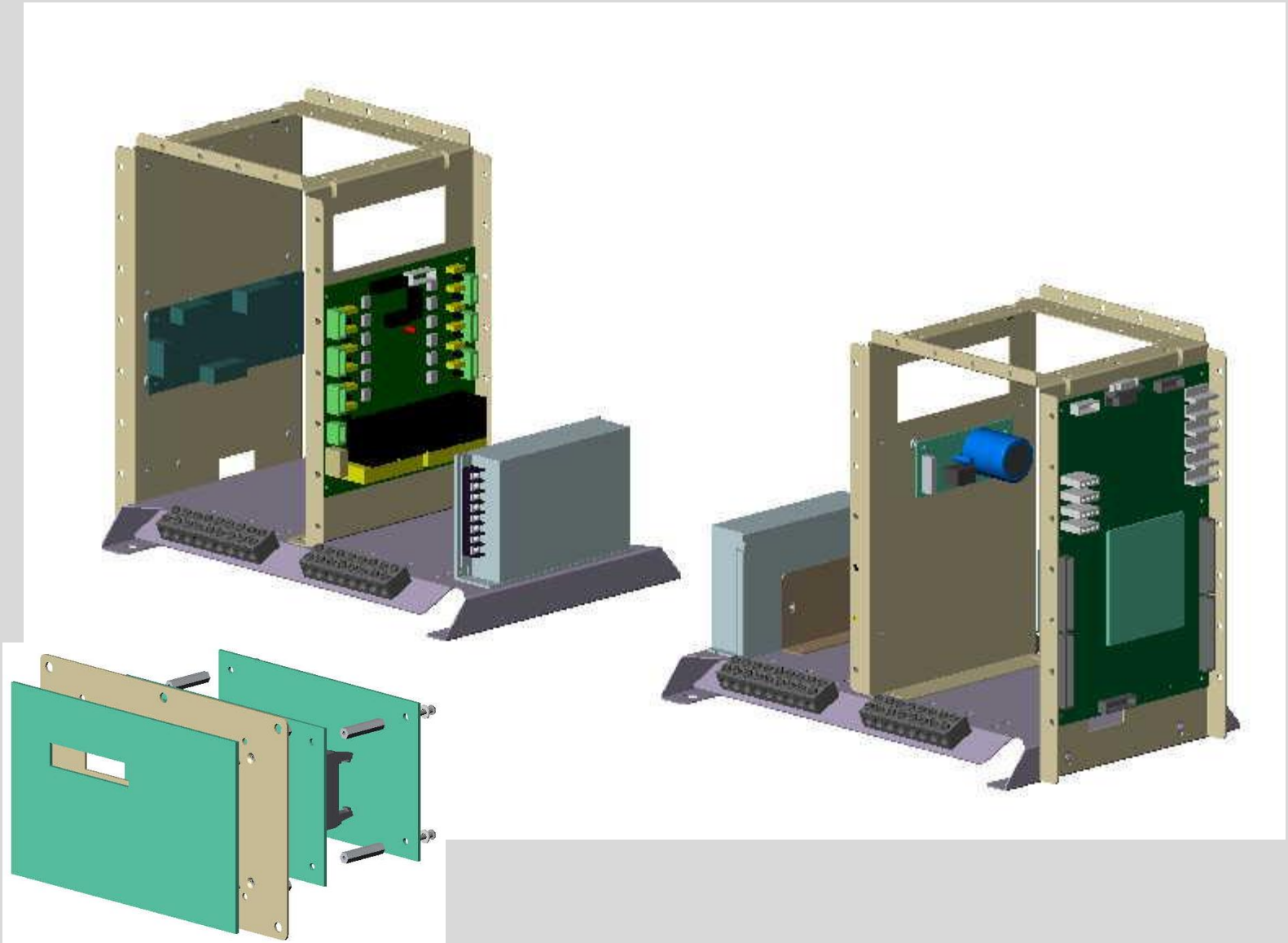
CAD Assembly

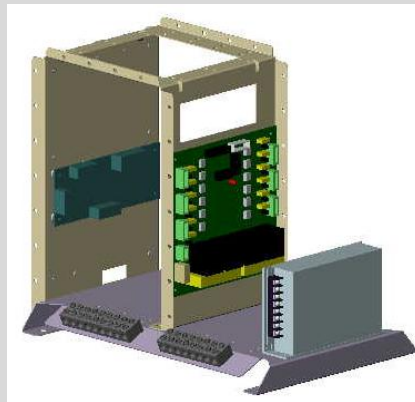
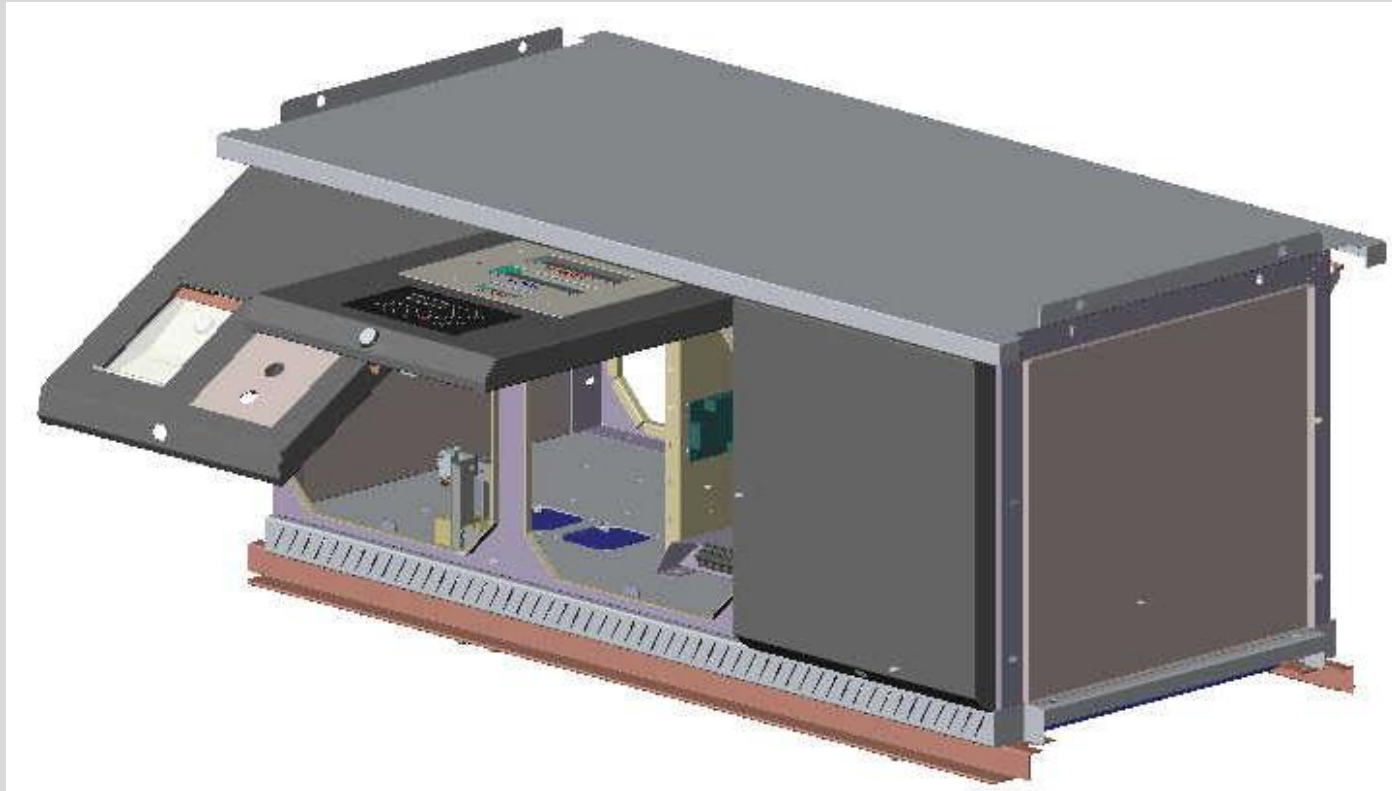


Modular Layout

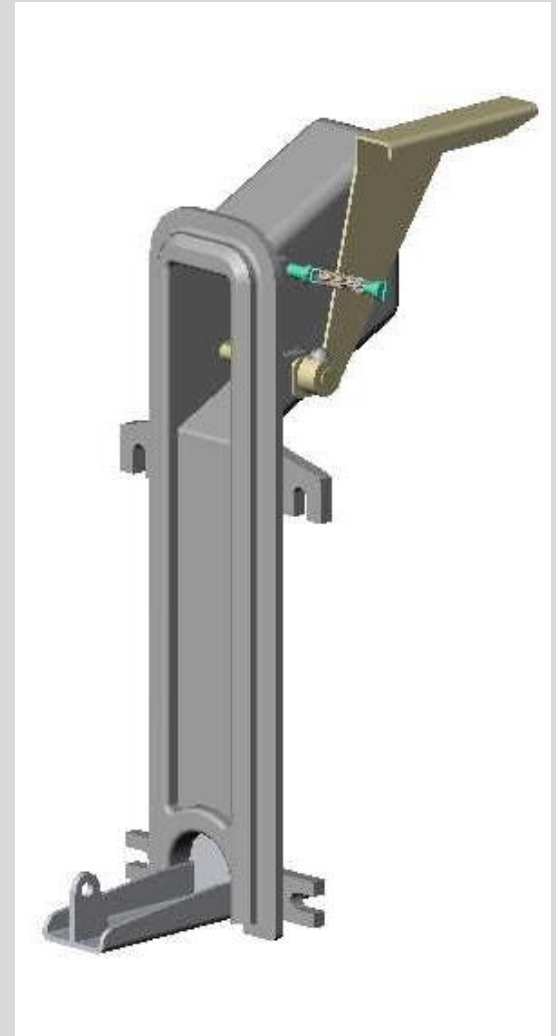
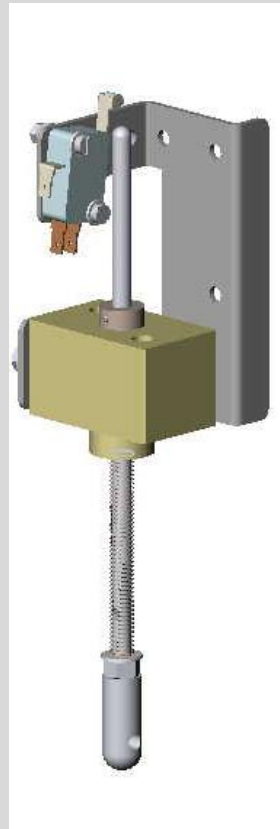








Auto Operation





5 17:21

Innovation by Design

- Large Market Penetration
- Gave tough competition to L&T
- Started Exports
- 10 time increase in turnover of the company
- Reached Rs 120 crores with 6 crores profit in 2007

Read Further



Z-line (1989)



Bullet (1998)



MPD (2002)



Oval (2005)



SureFill (2008)