

CH6511 Process Equipment Design - I

www.msubbu.in

Mechanical Design of Chemical Process Equipments Reinforcements to Openings & Manholes for Process Vessels

Dr. M. Subramanian

Associate Professor

Department of Chemical Engineering

Sri Sivasubramaniya Nadar College of Engineering

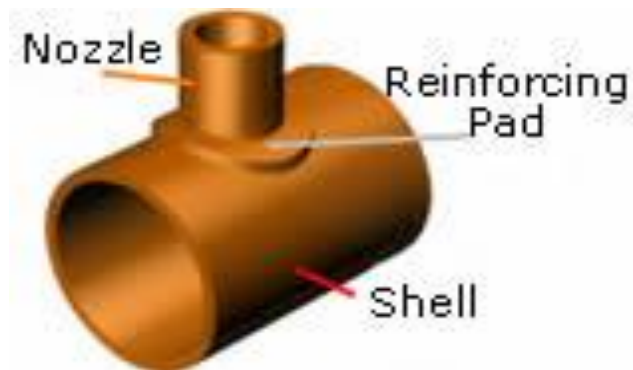
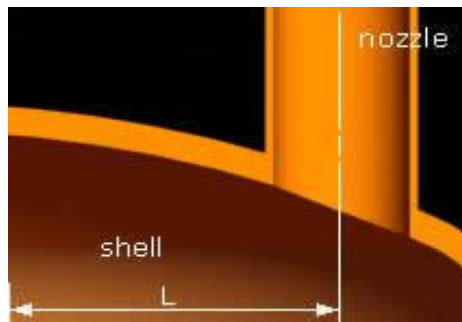
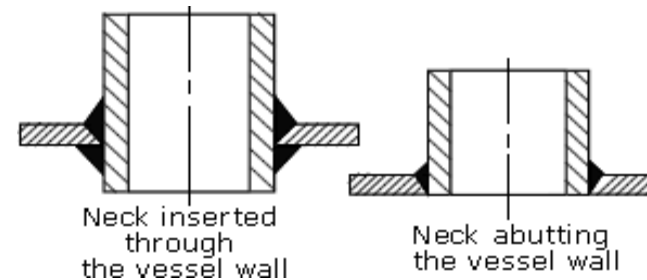
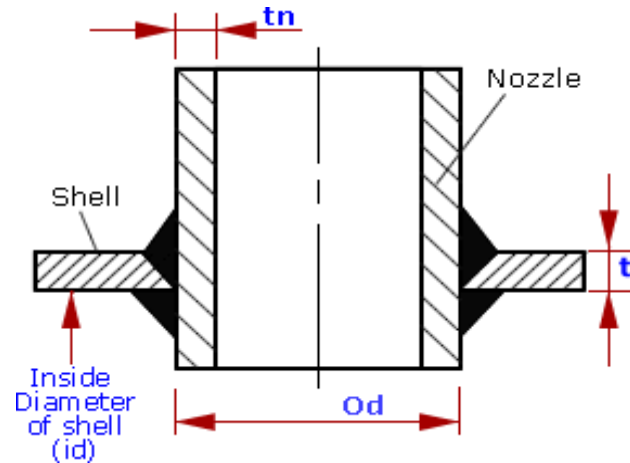
Kalavakkam – 603 110, Kanchipuram (Dist)

Tamil Nadu, India

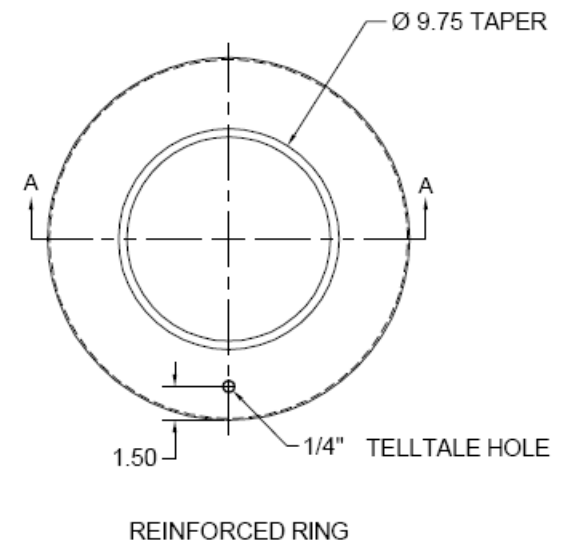
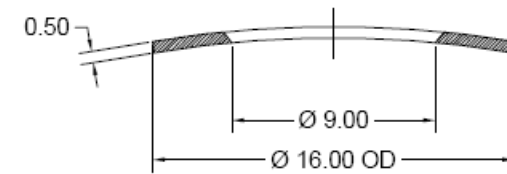
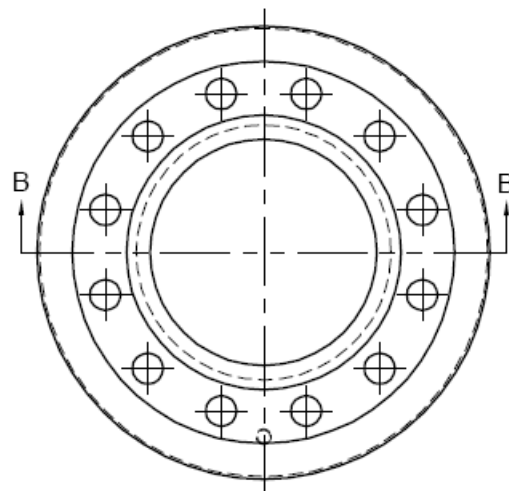
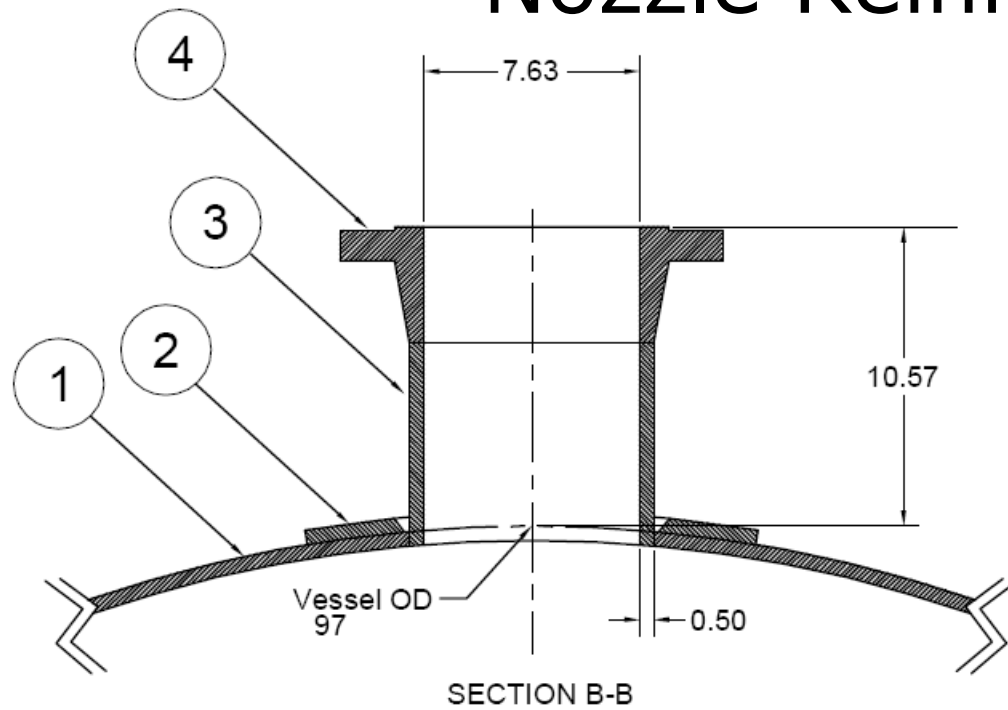
subramanianm@ssn.edu.in

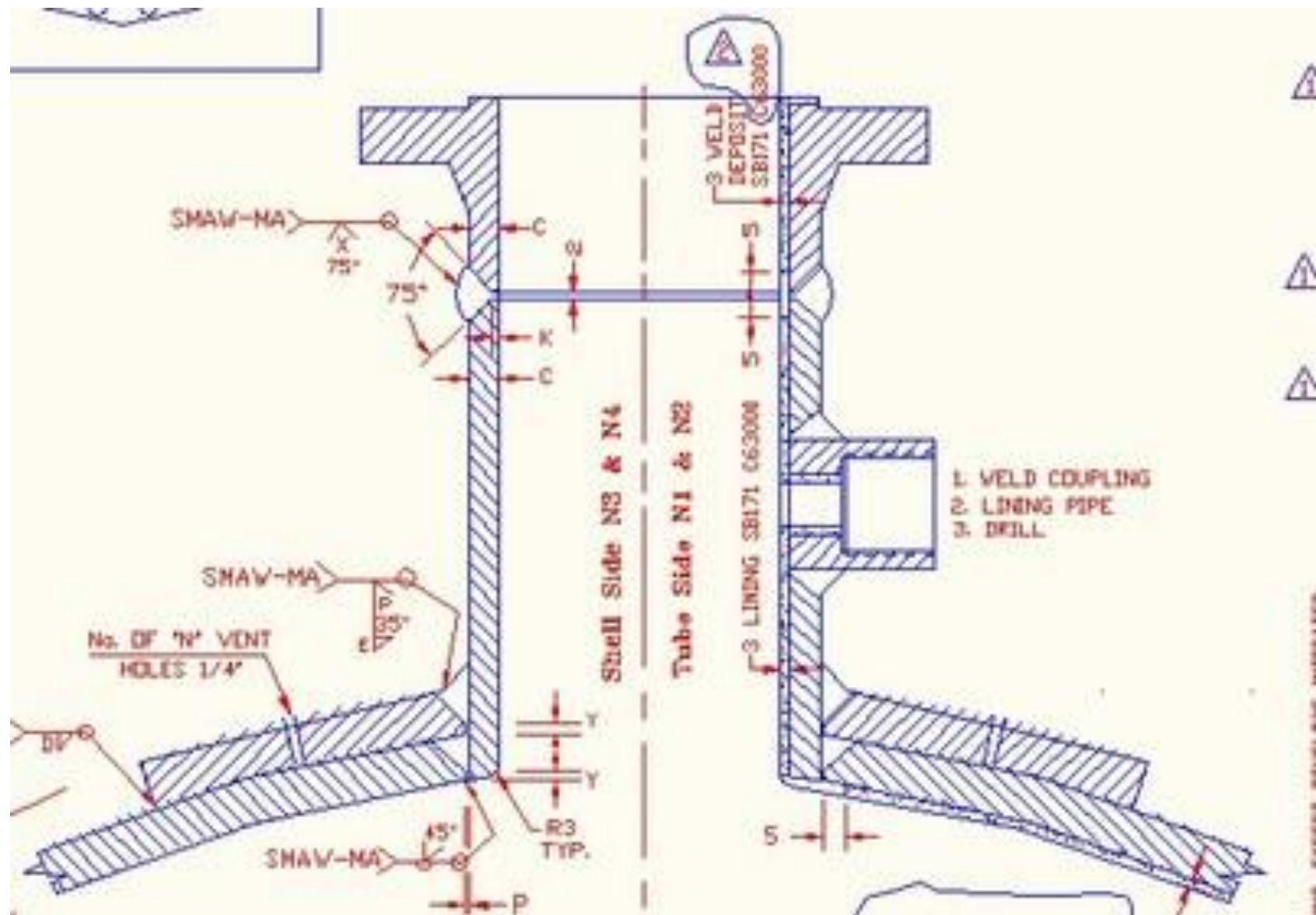


Nozzles attachment to shell



Nozzle Reinforcement



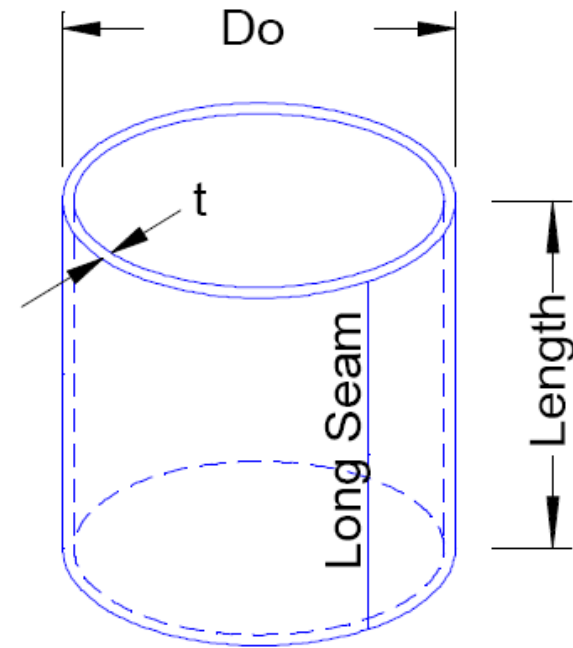
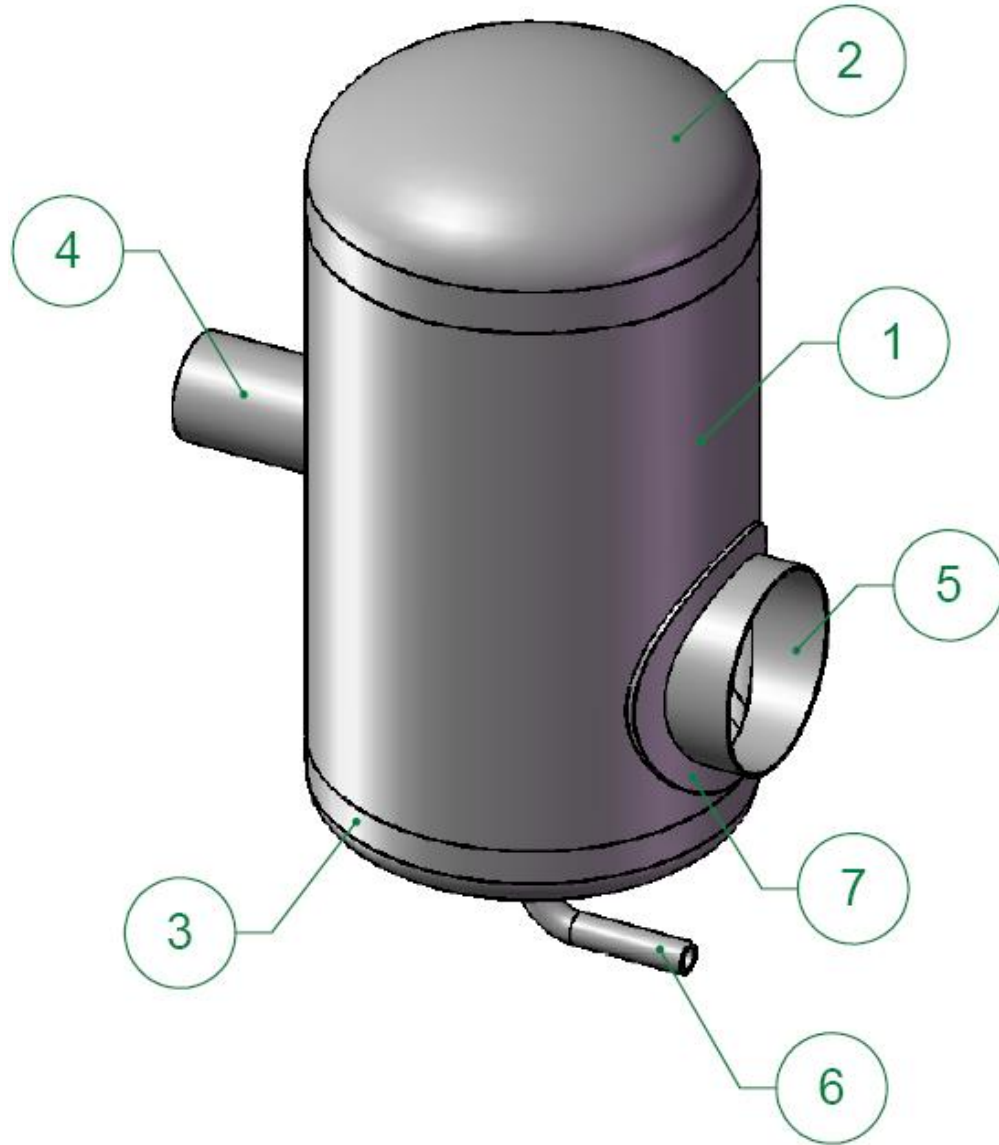


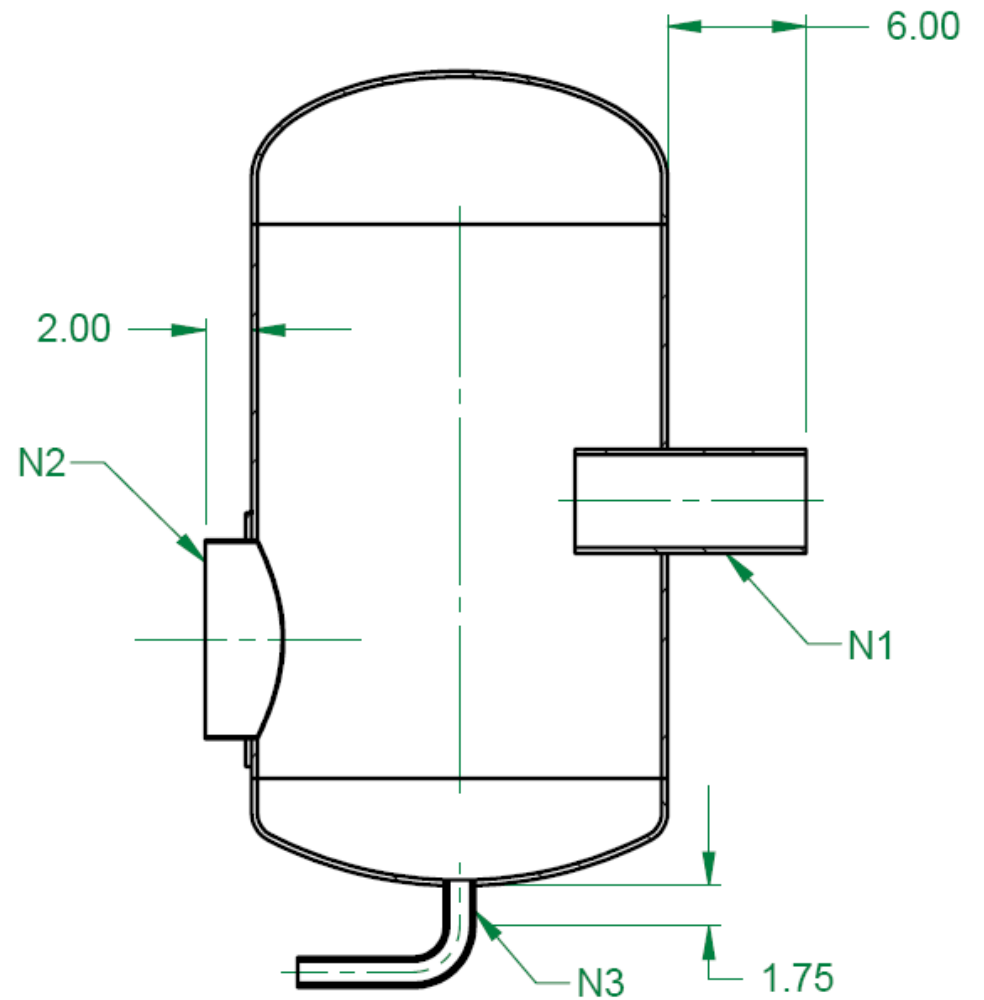
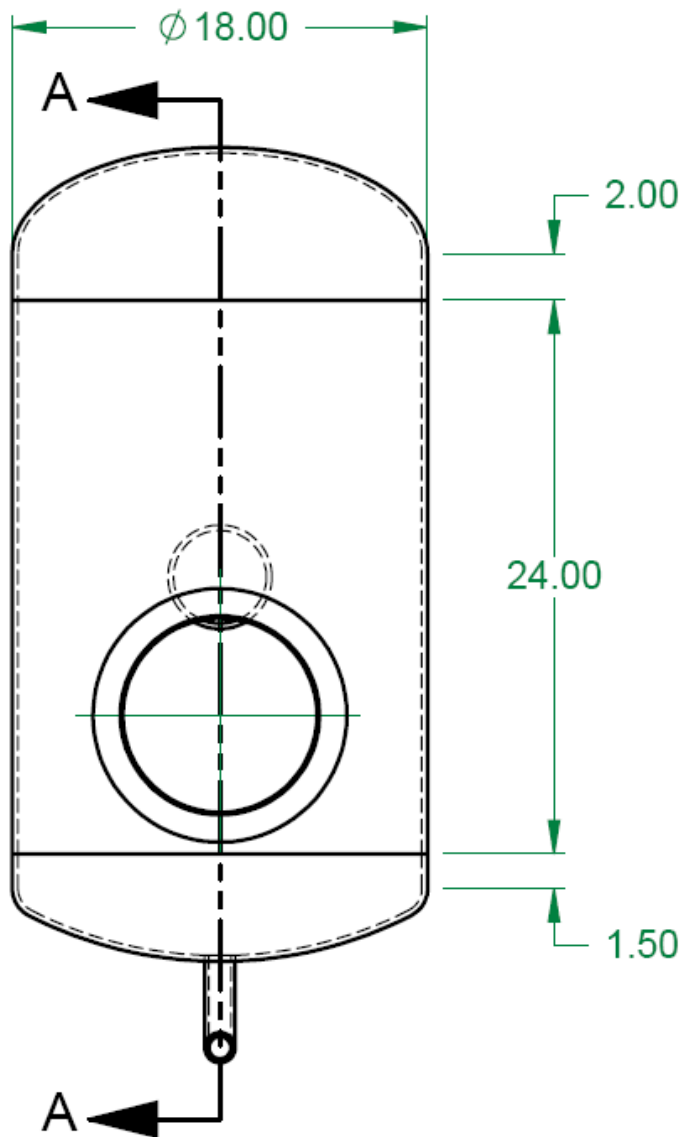
Reinforcement of Openings

- Openings must be reinforced to account for metal removed.
- Metal used to replace that removed must be equivalent in metal area









SECTION A-A

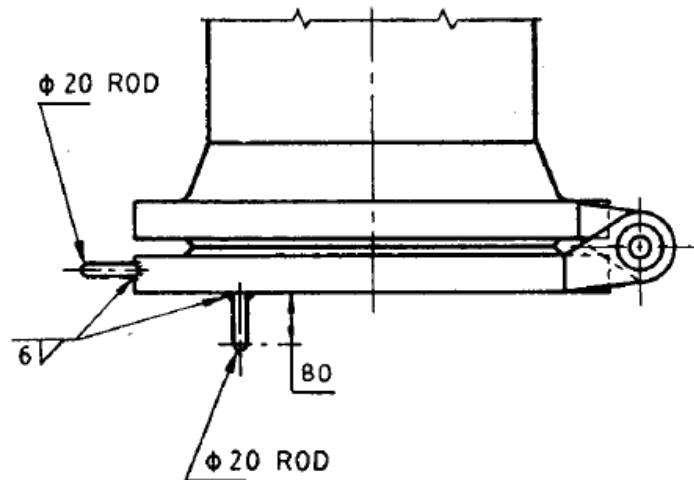
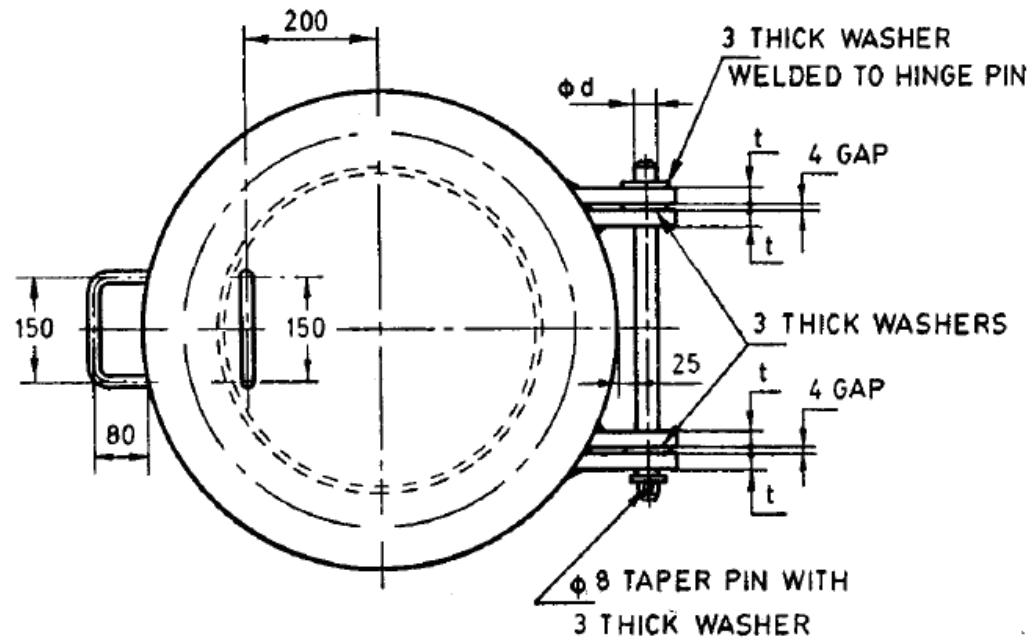
Manholes for Process Vessels



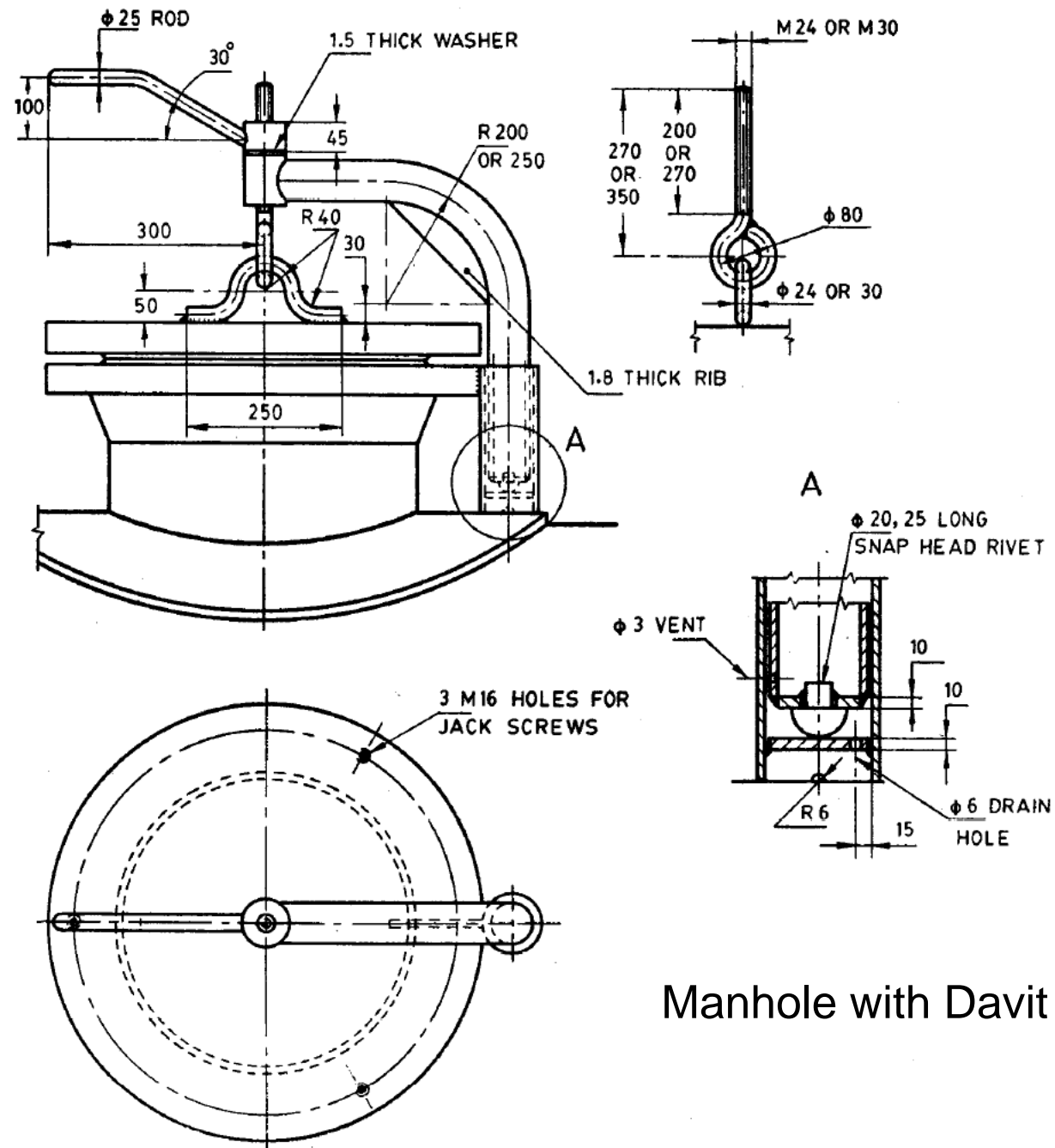




www.nokucun.com



Manhole with hinge support



Manhole with Davit