## Plantvare

Design and Operation of Pump Installations for feeding or Circulation of Fluid for

- Water Cold Water Feeding
- Water Hot Tap Water Distribution
- Heating Circulation
- Cooling Circulatoin
- Mixing Loop Circulation

The Training Course covers

- Single Configuration
- "1+n" Configuration
- Site-built or Manufactured
- Pressure Loss Calculations
- Pump Sizing and Selection with optimum Operation Point
- VSD Configuration Built-in Pump or general in MCC. Pros and Cons for both solutions
- Cabling Especially for External VSD with Shielding
- Control Philosophy Delta Pressure, Constant Pressure, Variating Pressure etc.
- Equi-Potential Bonding
- Connection e.g. Special Connectors for Grundfos pumps
- Compensators
- Protection Interlocks
- CTS or PLC General programming



raining: Pump Installations









Pictures of Pump Installations from various project – Naval, Pharma and an API for feeding and circulation of Water, Cooling, Fuel Oil and Heating.