Welding Processes

- Types of welding
  - manual metal arc MMA
  - metal inert gas MIG
  - tunsten inert gas
  - plasma arc welding and cutting
  - brazing or gas welding
  - soldering
  - gas cutting
- Hazads in welding
  - electric shocks from power supply
  - burns from hot metal surfaces
  - radiant energy emissions such as infra red radiant, visable light & ultraviolet light
  - metal fumes, gases, dusts and noise
- Welding fume production
  - Particulate fume
    - consist of both metal fumes and gases the composition of the fume can originate the metal weld, the electrode, the flux or from any coating on the surface.
  - Gaseous fumes and sources
    - Interaction of the arc with the surrounding air
      - ozone (O3)
      - nitrogen oxides
    - from the shielding
      - carbon monoxide
      - carbon dioxide
      - argon
      - helium
    - from the surface
      - acrid gases and vapours
      - phosgene, hydrogen
      - degeasing solvents

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