



# Why Magmaweld Consumables ?



## Quality Raw Materials

- Minerals & metal powders used in the formulas of electrodes, flux cored wires & fluxes, are purchased according to strict specifications and international standards, from all over the World.
- Each raw material lot number is controlled in our modern chemistry, physics & metallurgy laboratories. This is a very important base of uniform coating, low spattering during welding and consistency in quality.
- Quality assurance of raw material is a very important base for uniform coating, low spattering during welding, high mechanical properties and consistency in the quality products.
  - Strict specifications (especially for impurities) for wide range of minerals, ferro-alloys, organic materials and binders.
  - Wide range of suppliers from all around the world.
  - Modern & accurate analysis equipment for physical, chemical and metallurgical analysis.
  - %100 control for each lot



## Modern Manufacturing Technology

- Magmaweld's stick electrode & flux production lines based on Oerlikon's manufacturing technology. Solid and flux cored wire production lines have been installed and developed according to European wire production technology.
- Magmaweld's manufacturing lines are automated and computerized with real time data collection systems. Process parameters are monitored and controlled in real time for quality improvements and preventive maintenance. (Industry 4.0)
- Magmaweld's production processes are under continuously improvement with Lean Production, TPM, 6Sigma, MIS philosophies.
  - High precision & well maintained production equipment
  - Standard operation procedures (SOP) with strict production instructions
  - Computerized dosing system
  - Experienced operators
  - SPC (Statistical Process Control) analysis
  - Real-time monitoring of critical parameters for quality improvements and preventive maintenance.(Industry 4.0)
  - Magmaweld Improvement System



## The Best Wire Rods & Strips

- Chemical, physical and mechanical properties of wire rods and strips are controlled with modern spectrometers, physical and mechanical test equipments.
- 100% in lot and also coil basis. Although suppliers already provide test certificates, cross checking the manufacturer's lot analysis provides quality assurance of products with high quality product and consistency.



## Ideal Electrode, Flux, FCW Formulas

- Magmaweld product formulas and production processes are developed according to customer expectancies and VoC. Experienced R&D team collect customers thoughts and evaluate and use them to developed highly satisfactory products by using modern laboratories, equipments & prototyping facilities. Developed formulas are also precisely produced in the dry and wet mixers, to have the exactly right composition. Precise production of dry and wet mixes of each formula are done in computerized dosing system in big lots.
  - Wide range for different steel types
  - Customer oriented formula improvement/development
  - Modern R&D prototype labs
  - Effective field tests before mass production of new designs



## Perfect Welding and Technological Properties of Welding Consumables

1. Easy striking of stick electrodes
2. Easy re-striking of electrodes
3. Stable and smooth arc
4. Spatter free welds
5. Longer welding seams
6. High deposition rates
7. Easy slag removal
8. Pore free welds
9. Crack resistant
10. Higher weld metal mechanical properties
11. No welding defect
12. Higher corrosion resistant in stainless steels
13. High creep and weather resistant products
14. Consistent in each production lot.
15. User friendly packaging
16. Good impact toughness at low service Temperatures
17. Low diffusible hydrogen levels
18. Low welding fume emission



## The Best Welding Consumables Physical Properties

1. Smooth electrode coating
2. Strong / durable electrode coating
3. Uniform electrode coating thickness, (without eccentricity)
4. Excellent electrode tip preparation for easy striking
5. Clean wire surface
6. Smooth wire coating
7. Excellent wire feedability
8. Precisely wound spools
9. Strong flux particles,
10. Highly recyclable flux
11. Consistent flux grain size distribution
12. Durable packing in each type of product
13. Availability in different packing : box, spools, drums, bags
14. User friendly product and packing



## Modern Process Based Lean Management

Process management rather than hierarchical management ensures quicker response times to customer needs. All corporate processes, including CRM runs on Oracle database system.