



COST Vs. BENEFIT OF NITROGEN WAVE SOLDERING ALIX™ IN2ERTWAVE by Air Liquide

| Wave Soldering | | | |
|---|---|---|--|
| Customer: | SIEMENS AG | Working Hrs / Week | 120 |
| Machine ID: | Line B/C | Labor Cost (\$/hr) | \$25.00 |
| Location: | Witten, Germany | Cleaning System | No-clean |
| # Wave, Width: | Dual Wave, 22", 55 cm | Fluxer System | Spray |
| | | Air | Savings |
| Dross | Solder Alloy Type Dross (lbs/hr or kg/hr) Net Solder Cost (\$/lb or \$ / kg) Dross Total Cost (\$/week) | Sn-Pb: 63-37 4.58 \$1.95 \$1,071.72 | Sn-Pb: 63-37 0.687 \$1.95 \$160.76 |
| Wave Maintenance | Maintenance Time (hr/week) Labor Cost (\$/hr) Maintenance Total Cost (\$/week) | 12.5 \$25.00 \$312.50 | ALIX IN2W 2.5 \$25.00 \$62.50 80% |
| Flux | Flux Type Consumption (gals/week or L/ week) Unit Price (\$/gal or \$/L) Flux Total Cost (\$/week) | No-clean 6 \$25.00 \$150.00 | No-clean 4.5 \$25.00 \$112.50 25% |
| Rework / Touch Up | Rework Time (hr/week) Labor Cost (\$/hr) Rework Total Cost (\$/week) | \$\$\$ CONFIDENTIAL | ALIX IN2W \$\$\$ CONFIDENTIAL 55% |
| Nitrogen | Estimated Total Cost N2 + IN2W / Hr. Nitrogen Total Cost (\$/week) | | \$3.50 \$420.00 |
| | | Weekly Savings | \$778.46 |
| | | Annual Savings | \$40,480.02 |
| Additional Savings Potential | | | |
| Quality Improvements: Less Defects & Higher Reliability Less Residues on the Board Higher Machine Uptime - Increased Production Safer Work Environment - Reduced Exposure to Lead Oxides | | | |