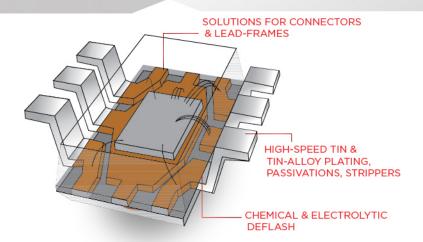


Process Solutions for Packages Including QFN | SOT | TO



DEFLASH, TIN & TIN ALLOYS, AND ANCILLARIES

Growel offers comprehensive solutions for deflash, pretreatment, plating processes (tin, tin alloy, silver, etc.), passivation, and strippers (tin/silver, belt).

- · Advanced chemical and electro deflash chemistries to soften epoxy resin on lead-frames
- High-speed, MSA-based tin & tin alloy plating; ensures pure, matte deposits with minimal carbon and excellent reflow
- Non-foaming electrolytic pretreatment; removes oxides efficiently
- Chrome-free passivation to protect tin-plated components from deterioration, maintaining solderability and low contact resistance
- Effective tin/tin alloy stripper for copper surfaces

Our technologies ensure superior component performance and longevity during production and storage.

ELECTRO PLATING LINE (CDF/EDF/EPL)

Growel, in partnership with OTMK GmbH, manufactures and supplies high speed Electro Deflash Lines (CDF/EDF/EPL) designed for precision lead-frame manufacturing. These systems are engineered to deliver precise, high-speed processing with optimal coating performance.

FEATURES:

- High-speed plating line for moulded lead-frames with uniform plating
- Frames up to 100 mm by 320 mm can be plated at 2400 strips per hour
- · Excellent electro deflash
- Stack/slotted magazine system with auto-loading/unloading
- High pressure rinse up to 800 bar

AUTOMATION:

- Precision quality control with SPC analysis
- Automatic troubleshooting system
- Coating thickness monitoring
- Seamless auto-loading & unloading
- · Negligible change over time
- Optimal current distribution
- Al-powered automation

About Growel

India's trusted leader in metal finishing and surface treatment since 1957

We are pioneers in electroplating, paints, lubricants, surface treatment intermediates, and mission critical equipment, **including comprehensive water treatment solutions.** We partner with customers in diverse industries to provide comprehensive solutions backed by in-depth domain knowledge. Our R&D is recognised by the Indian Council of Science & Technology; our plants and processes are IMS certified.



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