

APPLICATIONS BULLETIN

How Will My Process Benefit from NanoClear®?

Nanoclear benefits all SMT stencil printing processes in terms of:

- **Quality** – higher yields and better transfer effectiveness (link)
- **Productivity** – less down time for wiping and roll changes
- **Cost Reduction** – lower rework and consumable costs

The extent of the benefits depends on the complexity of the process.

The chart below indicates improvement in each area based on PCBA layout and component types

nanoclear SMT Stencil Treatment Benefits

PCB Assembly Characteristics	Quality		Productivity		Cost Reduction	
	Higher Yields	Better Transfer Effectiveness	Reduced Under Wiping	Less Downtime for Paper Change	Lower Paper and Solvent Usage	Less Rework
Component Population Density						
High	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
Med	✓✓	✓✓	✓	✓	✓	✓✓
Low	✓	✓	✓	✓	✓	✓
Component Mix						
Most component pitches ≤ 0.5mm	✓✓	✓✓	✓✓	✓✓	✓	✓✓
Mix of fine and coarse pitch components	✓✓	✓	✓	✓	✓	✓✓
Most component pitches ≥ 0.5mm	✓		✓	✓	✓	
Component Type						
Leading edge ≤ 0.4mm pitch leadless (BGA, BTC, POP), 01005 chip	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
Challenging new packages 0.5mm pitch leadless, high I/O BGA, 0201 chip	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓
Mainstream SMT > 0.5mm pitch leadless, ≥ 0.4mm leaded, ≥ 0402 chip	✓	✓	✓	✓	✓	✓

✓ - measurable improvement, ✓✓ - substantial improvement