

# Screen Printing Solutions

Proven disruptive technology  
transforming UV screen printing  
to LED



## SST Offers Pioneering Industry Technology to Transform UV Screen Printing to LED

- Lowest available energy consumption and carbon emissions
- Fast payback on LED investment
- Eliminates heat from printing process
- Improves productivity and print quality
- Compatible with most common LED screen printing inks
- Simplifies the printing process
- Retrofit a press in a 1/2 day

## The ONLY **COLD CURE** Technology in the Industry

### ELIMINATES FIRES ON PRESS

- Decrease press downtime
- Decrease substrate, ink, and labor waste
- Increases productivity / yield

### ELIMINATES SUBSTRATE DISTORTION FROM UV HEAT

- Faster and consistent registration
- Eliminates post print curling, mottling, or blocking due to heat
- Improved die cutting variability due to heat

### SIGNIFICANT REDUCTION IN MAINTENANCE TIME AND COST

- No moving parts, reflectors or shutters
- Bulb replacement at least 15x less often
- Much less frequent maintenance
- Much less time per maintenance



## Other Benefits

- **Energy cost and carbon emission reduction**
  - 90% reduction in curing systems v.s. UV
  - 100% reduction in exhaust system
  - Reduction in air conditioning costs in print room
  - Eliminate fan/cooling equipment cost in finished product stacks
- **High dosage and dwell time deliver**
  - Faster curing time
  - Improved adhesion
- **Eliminate need for roof penetration and maintenance of exhaust systems**
- **Eliminate air movement and dust from exhaust systems**
- **Reduced square footage requirement for curing and exhaust**
- **Significant reduction in noise in working environment**
- **Supports sustainability and green initiatives**
- **Eliminate VOC's and mercury**



# Read Our Latest Case Study

In 2018-2019, we replaced UV with SST LED on 11 screen presses from 40" to 60" wide - Total of 521". See the feedback below.

**3-YEAR FOLLOW UP**



## Impacts from Eliminating Heat

- **Fires have been eliminated**
  - Averaged 50 events per year @ 1/2 hour loss of production and 1.5 man hours per event
- **Heat effects on substrate eliminated**
  - Removed exhaust systems
  - Faster print registration
  - Holds consistent register on 144" substrate
  - Removed fans used to cool finished product stacks
  - Mottling and blocking of finished product stacks
  - Eliminated die cutting variability due to heat

## Impacts on Productivity & Waste

- **Maintenance time reduced 75%**
  - 10 hours per year v.s. 40 hours = 30 hrs more productivity
  - Exhaust system maintenance eliminated
- **Waste material reduced 20% during this period**
  - Eliminate wasted product from mottling Registration and die cutting due to heat
  - Reduced waste due to print defects from air movement and dust caused by exhaust systems

## Environmental and Energy Impacts

System	Tons of Carbon Emissions / Yr				\$/s of Energy cost / Yr			
	Equipment	SST LED	Reduction	%	Equipment	SST LED	Reduction	%
Ink curing	557	54	-503	-90%	\$57,213	\$4,347	\$(52,866)	-92%
Exhaust	99	0	-99	-100%	\$15,505	\$829	\$(14,676)	-95%
<b>Total</b>	<b>665</b>	<b>54</b>	<b>-602</b>	<b>-92%</b>	<b>\$72,718</b>	<b>\$5,176</b>	<b>\$(67,542)</b>	<b>-93%</b>

## Additional Observations

- Installation was a 1/2 day per press on average - very low downtime
- Service and Support from SST has been excellent
- Durability and reliability has been very good after 17000+hours of print time per press
- Significant savings are being realized when moving to new print room by eliminating cost of penetration
- Eliminates 5%-10% less square footage required in new print room
- Noise levels reduced significantly
- Operators can discuss and hear if there are mechanical issues
- The sight-line across the print room floor is much improved and cleaner

“One of the better decisions I have made in 30 years with this company.

- GENERAL MANAGER

