

# Transfer Efficiency

## Transfer Efficiency

Maximizing powder transfer efficiency is the best single way to improve the effectiveness of automatic application systems. It positively affects film thickness control, part wear and powder usage, all of which impact overall finishing cost.

Improving transfer efficiency requires balancing or maximizing numerous system and powder variables related to charging and deposition. The attached chart lists the variable factors influencing transfer efficiency and rates both the impact of the variable on transfer efficiency and the relative ease of changing the variable.

Variable factors with ratings of 5/1, 5/2, 4/1 and 4/2 with respect to impact and ease of change should be the starting points for transfer efficiency improvement. They will provide the greatest benefit at the lowest cost of least effect on other operations.

If you have any questions regarding maximizing transfer efficiency, please contact Applications Engineering.

### MAXIMIZING TRANSFER EFFICIENCY

TRANSFER EFFICIENCY VARIABLES	IMPACT ON EFFICIENCY	EASE OF CHANGE
<b>1. Charging Efficiency</b>		
- Gun Voltage	5	1
- Gun to Part Distance	5	2
- Powder Output	4	1
- Powder Dielectric Constant	2	5
- Powder Particle Size	3	3
<b>2. Deposition Efficiency</b>		
- Transport Air Pressures	5	1
- Recovery System/Booth Capture Air	5	2
- Powder Dispersion (Cloud)	4	2
- Gun Movement, Aiming, Spacing and Number	5	2
- Gun Triggering/Part Indexing	5	5
- Part Size, Shape and Complexity	4	5
- Part Batching	3	4
- Racking and Part Spacing	4	3
- Grounding, Hook/Hanger/Load Bar Cleaning	5	1
- Line Speed, Conveyor Movement	2	4
- Degree of Manual Touch up	4	1
- Film Thickness	4	3
- Virgin to Reclaim Ratio	5	2
- Powder Resistivity	1	5
- Powder Specific Gravity	3	4