



ROI Template Cascade e-Ion-14 Tool Bit Application

Example based on application in Metal/Oxide Recovery Industry

Notes See Below

- 1 Equipment Amount
- Addition for a 'Never-Down' Unit
- 2 Estimated Monthly Lease Payment (48 month)
- 3 Tax Deduction
- Net Cost per month
- Net Cost per Day

	Equipment Cost	Monthly Leasing Cost
1 Equipment Amount	\$200,000	\$ 4,990.00
Addition for a 'Never-Down' Unit	\$0	\$ -
2 Estimated Monthly Lease Payment (48 month)	\$ 4,990.00	
3 Tax Deduction	\$ 1,996.00	
Net Cost per month	\$ 2,994.00	
Net Cost per Day	\$ 136.00	
Total Monthly Payment		\$ 4,990.00

- 4 **Savings from e-Ion treating**
- 5 Number of tool bits coated/treated in one minute
- Number of tool bits coated/treated in one hour
- Additional cost per treated tool bit if purchased
- Savings from treating 840 toolbits with cascade e-Ion (1 hour)
- Savings from 20 hours of treating 16,800 toolbits (Monthly).
- 6 Savings are higher with longer use.

	New Monthly Savings Revenues	Monthly Monthly Energy Cost
14		
840		
\$ 25		
21,000		
420,000	\$ 420,000	
\$ 1.50		
\$ 90.00		\$ 90.00

Energy cost of operating Cascade e-Ion-14

Cost per hour 15 kW @ \$0.10 per kWh
 Cost of 60 hours running time per month
 (One hour of ramp up and one hour of cool down for any use period)

Total Savings net of leasing and energy costs	\$ 414,920.00
Yearly Net Benefit	\$ 4,979,040

Yearly savings from Cascade-e-Ion treating of tool bits(\$420,000*12) is over \$5 Million!

Notes and Assumptions

- 1 Can include installation and other costs for leasing. 'MHI Never-Down Program' allows the purchase of a second unit of the device along with
- 2 Interest rate around 4% for illustration
- 3 Estimate. Other tax benefits may be possible
- 4 Not all benefits may be quantifiable, or immediately realized. Savings and benefits to user could be substantially more than presented here. Based on case-study of hardfacing with Cascade e-Ion-14. Much lower processing time per volume or kg. compared to large furnaces or flame.
- 5 This return on Investment (ROI) analysis is meant to be used as a tool. Savings and benefits to user could be more or less than presented here. Calculations shown here are meant to be indicative and will vary for specific applications, equipment and use conditions. This is an approximate guide and the template may be modified for customer's specific use. Interest rates, energy costs, equipment cost and other costs used in the analysis are subject to change at all times. MHI does not guarantee any specific ROI analysis that a purchaser may use in their decision making process.