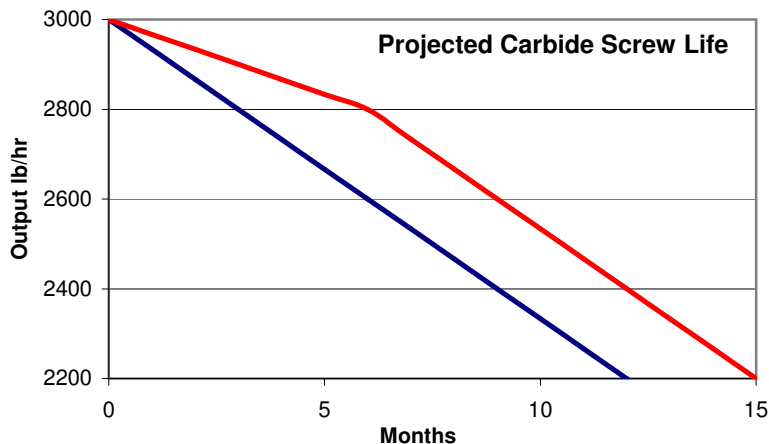


## ROI / Through-put Rate Worksheet

Estimated ROI prepared for: Confidential 5/28/2008  
 Customer Contact: John Q. Public Screw Rep: Acme Feedscrew

This document provides an estimate of return based on feedscrew output improvement of carbide compared to your current feed screw. This simple model uses beginning and ending output rate, present screw hardfacing and total wear amount to compare these options. Carbide is estimated to wear at 1/2 the rate of existing hardfacing. The output estimates are calculated using the current feedscrew service life. Tungsten carbide will wear at 1/3 to 1/5 the rate of standard hardfacing. See our ASTM G65 wear test data.



Production Data		
	New	End
<b>Output/hr.</b>	3000	2200
<b>RPM</b>	80	80
	Hrs/day	Days/mo
<b>Schedule</b>	24	30
Output/mo.	Current	Carbide
<b>New</b>	2,160,000	2,160,000
<b>@ 12 mo.</b>	1,584,000	1,728,000
<b>Decline</b>	-27%	-20%
Output at month 12		
<b>Total</b>	22,752,000	23,976,000
<b>Output Gain</b>	1,224,000	
<b>Saleable Production Gain</b>	\$490,000	
<b>Monthly Gain</b>	\$41,000	

Calculation Data	Current	Carbide
Screw Diameter in mm or in:	6.00	6.00
Screw substrate/hardfacing:	Col 83	XC1000
OD Wear tolerance in thousandths:	0.080	0.080
Projected life in months:	12	15
Production sell price per lb.	\$0.40	\$0.40

### Estimated Monthly Return on Investment from Production Gain

Saleable output gain/mo. = **\$41,000**

The Production Efficiency Advantage Factor (PEAF) helps quantify gains that result from postponing a wear condition. Direct cost reduction includes: power consumption, cooling requirements, scrap regrind and handling, degraded non-useable product, direct maintenance labor, unscheduled downtime, etc. Indirect costs include; lower productivity, higher cost per unit produced, lost capacity, process instability, etc.