



## ROI / Through-put Rate Worksheet

Estimated ROI prepared for:

Confidential

5/28/2008

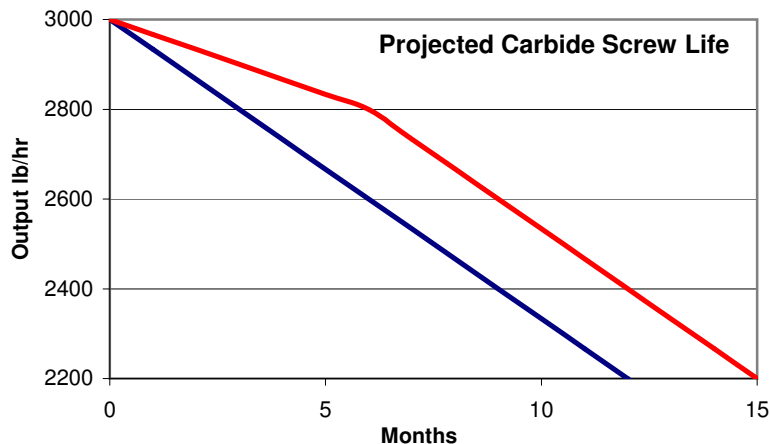
Customer Contact:

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
<b>Output at month 12</b>		
<b>Output/mo.</b>	<b>Current</b>	<b>Carbide</b>
<b>New</b>	2,160,000	2,160,000
<b>@ 12 mo.</b>	1,584,000	1,728,000
<b>Decline</b>	-27%	-20%
<b>Output at month 12</b>		
<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
<b>Screw Diameter in mm or in:</b>	6.00	6.00
<b>Screw substrate/hardfacing:</b>	Col 83	XC1000
<b>OD Wear tolerance in thousandths:</b>	0.080	0.080
<b>Projected life in months:</b>	12	15
<b>Production sell price per lb.</b>	\$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.

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