



TUNGALOY TEST TOOL EVALUATION REPORT

DATE:	08/01/05
REPORT#:	

COMPANY:	"MACHINERY MFG."	SALESMAN:	Greg Nichols - Canada
CONTACT:		PART DESCRIPTION:	Roll Dies
TEL:		WORK MATERIAL:	D2
FAX:		MAT'L HARDNESS:	

TYPE OF OPERATION	CNC-Vertical Milling w/rotary	MACHINING OPERATION (SKETCH)
MACHINE TOOL & TYPE	bridgeport design with high finishing abilities	
RIGIDITY	good	
COOLANT TYPE	Dry	
COOLANT METHOD	Air Blast	

	COMPANY / COMPETITOR	COMPETITOR	TUNGALOY	TUNGALOY	TUNGALOY
		CURRENT	FIRST TEST	SECOND TEST	THIRD TEST
TOOLING REQUIRED	TOOL DESCRIPTION	solid carbide	EWD05010R		
	HOLDER/BODY TYPE	collet	collet		
	INSERT	none-4flute	RDMW0501M0		
	INSERT GRADE	unk	AH120		
CUTTING PARAMETERS	WORKPIECE/CUTTER DIAMETER	10mm	10mm		
	FEED RATE (IPR = f or IPM = F)	35 IPM	100 IPM		
	CUTTING SPEED (RPM=R or SFM=V)	3800 RPM	4800RPM		
	H.P. REQUIRED (% or ACTUAL)				
	DEPTH OF CUT (INCHES)	0.050	0.025		
TOOL PERFORMANCE	CYCLE TIME FOR TOOL (min)	15.000	12.750		
	PIECES PER EDGE	1	1		
	TOOL LIFE (min per edge)				
	EDGES USED PER INSERT	1	4		
	PIECES PER INSERT	1	4		
	SURFACE FINISH (RMS)				
	REASON FOR INDEXING	NORM	NORM		
	EST ANNUAL INSERT USAGE (pcs)	2000	250		
COST EVALUATION	INSERT COST	\$15.00	\$4.56		
	NUMBER OF INSERTS IN TOOL (multi)	4	2		
	INSERT COST PER PIECE	\$60.00	\$2.28		
	INSERT INDEX TIME (min)	2.00	2.00		
	HOURLY MACHINE DEPT. COST	\$90.00	\$90.00		
	TOTAL ANNUAL PIECES	500	500		
	MACH TIME + TOOL COST FOR TOOL	\$82.500	\$21.405		
	WON or LOST		WON		

COMMENTS:

This was a unique test. There is the advantage for competitor in that the endmill can be re-ground, but this is expensive and performance is never to the original quality. EWD has lighter spindle load required and there was no heat put back into the die. The heat came out with the chips.

NOTE: ALL PRICES/COSTS ARE IN CANADIAN DOLLARS



TUNGALOY AMERICA, INC

COST ANALYSIS AND SAVINGS REPORT

Company: "MACHINERY MFG."
Contact: 0

DATE: 01-Aug-05
TTA Rep: Greg Nichols - Canada

TUNGALOY

HIGH OUTPUT TECHNOLOGY

	Competitor COMPETITOR	TUNGALOY HIGH OUTPUT TECHNOLOGY	
Cost of Insert	\$ 15.00	\$ 4.56	Insert: RDMW0501M0
Number of Corners	1	4	Grade: AH120
Cost Per Corner	\$ 15.00	\$ 1.14	
Number of Inserts In Tool	4	2	
Cost Per Loaded Tool	\$ 60.00	\$ 2.28	
Number of Parts Per Corner	1	1	
Insert Cost Per Part	\$ 60.000	\$ 2.280	
Number of Parts Run Per Year	500	500	
Cost of Inserts Used Per Year	\$ 30,000.00	\$ 1,140.00	

Down-Time Cost

Note: If Insert Change is Internal to Cycle Place 0 in Insert(s) Changing Time

	Competitor	TUNGALOY HIGH OUTPUT TECHNOLOGY
Machine Operating Cost per Hour	\$ 90.00	\$ 90.00
Minutes in 1 Hour	60	60
Operating Cost per Minute	\$ 1.50	\$ 1.50
Insert(s) Changing Time (in minutes)	2.00	2.00
Cost per Insert Change	\$ 3.00	\$ 3.00
Number of Insert Changes per Year	500	500
Cost of Yearly Downtime	\$ 1,500.00	\$ 1,500.00

Cycle Time Savings

	Competitor	TUNGALOY HIGH OUTPUT TECHNOLOGY
Machine Operating Cost per Hour	\$ 90.00	\$ 90.00
Minutes in 1 hour	60	60
Operating Cost per Minute	\$ 1.50	\$ 1.50
Cycle Time for Tool (in Minutes)	15.0000	12.7500
Operating Cost per Part	\$ 22.50	\$ 19.13
Number of Parts Ran per Year	500	500
Cost of Cycle Time per Year	\$ 11,250.00	\$ 9,562.50
Estimated Annual Cost	\$ 42,750.00	\$ 12,202.50

TOTAL SAVINGS PER YEAR

Cost of Inserts	\$ 28,860.00
Cost of Down Time	\$ -
Cost of Cycle Time	\$ 1,687.50

Total Savings \$30,547.50

WINNER



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