

MACHINE LAYOUT

MACHINE: HB45/12
MACHINE CYCLE TIME: 9.5 SEC.
INDEX TIME: 0.7 SEC.
BAR CHANGE NO.: N/A
CUTOFF SAW RATIO: N/A

CUSTOMER: DRA
PART NO.: 10500400
PART NAME: PINION
MATERIAL: 10B21
MATERIAL SIZE: SUPPLIED BLANK

Revision Date: 12/30/2003

Station	Machining Operation	Unit	Valve	Motor	Pulley S	Pulley M	Total Stroke	Toolhead Type	ER Bushing	SFM	Limiting Diameter	RPM	Feed (IPR)	Feed Stroke	Total Rev's Per Cycle	Unit Cycle Time
1	LOADING	LOAD	LOADING	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.0
2	R. FACE/ C. SINK	30/60	INFINITE	1700 (90)	7	2	1.000	Chamfer	ER25 9-10	266.4	1.184	860	0.0019	0.050	52	4.0
3	F. FACE	30/60	SINGLE	1700 (90)	8	1	2.250	PCM Rough	N/A	198.3	1.184	640	0.0016	0.010	38	4.0
4	INVERT	40/80	INVERT	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	ROUGH TURN	40/80	SINGLE	1700 (100)	7	2	0.750	PCM Rough	N/A	260.2	1.184	840	0.0056	0.575	111	8.8
6	FINISH TURN	30/60	SINGLE	3400 (90)	8	1	0.750	PCM Finish	N/A	352.7	1.045	1290	0.0036	0.505	155	8.0
7	COUNTERSINK	20/50	INFINITE	1700 (90)	8	1	2.250	Drillhead	ER20 9-10	104.7	0.625	640	0.0044	0.160	48	5.0
8	FACE & CHAMFER	30/60	SINGLE	1700 (90)	7	2	0.750	Chamfer	N/A	231	1.028	860	0.0019	0.050	53	4.0
9	ROUGH GROOVE	40/80	INFINITE	810 (90)	6	3	1.000	Recesshead	N/A	143.6	1.028	534	0.0019	0.081	70	8.8
10	FINISH REAM	30/60	W.PECK	1700 (90)	5	4	2.000	Drillhead	ER32 12-13	194.2	0.519	1430	0.0069	1.257	189	8.8
11	FINISH GROOVE	CNC	N/A	1700 (90)	5	4	N/A	Valenite	N/A	443.0	1.184	1430	0.0016	0.248	189	8.8
12	EMPTY	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES: STATION #3 MOTOR NEEDS TO TURN IN REVERSE (CCW) DIRECTION

STATION #11 CNC PROGRAM FOR 10500400

(SET FEED % KNOB ON 150%)
 (PROGRAM WRITTEN IN INCHES)

PATTERN #11

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G70
G90
X0.0
Z0.0
GOO
Z-0.417 X-0.040
T0001
G91
Z-0.494
G20
X-0.069
G01F6.00
X-0.014 Z0.007
X-0.303 Z0.040
G01F6.0
    
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X-0.025 Z0.003
G00
X0.206
Z0.061
X-0.019
G01F7.0
X-0.072 Z-0.035
X-0.092
G01F4.0
X-0.018
Z-0.005
G90
G00
T0000
X0.0
Z0.0
M02