Material choice :

# Part number	Name	Price CAD $	Dimensions
8909K61	Cast Iron rod Ø 6" 1	356.2915	Ø6" L=1ft
8926K32	Cast Iron disk Ø 8" 1.25"	73.72	Ø8" L=1.25"

CONCORDIA UNIVERSITY MANUFACTURING PROCESSES SHEET

Date:	Date:	Date:
Time In:	Time In:	Time In:
Time Out:	Time Out:	Time Out:

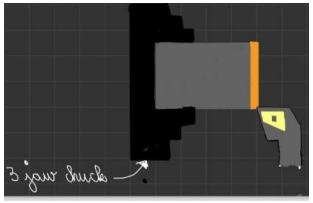
Drawing name or number :	Tube Teal
Name of operator:	Grace Kafechina
Name of operator2 [assistant/supervisor/etc] :	/
Name of staff member responsible :	/
EIR / Process approval :	/
Total Expected Duration **[min]** =	**22.66427331**

Op #	Op. Name	Machine	Tool Name	# of teeth
1	Facing	Lathe	Carbide turning/facing tool	1

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.013	6	102
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.1	1.32		2.265404752	

Drawing



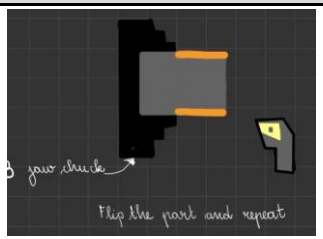
Comments: Before facing, the 2 inches of cast iron need to be cut so that about 6.25" remain.After the 6.25'' rod undergo

Op #	Op. Name	Machine	Tool Name	# of teeth
2	Turning	Lathe	Carbide facing/turning tool	1

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.013	6	102
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.1	1.32	1.24	4.530809505	

Drawing



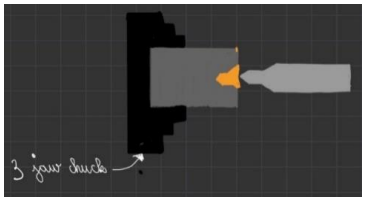
Comments: The diameter of the rod purchased need to be reduced. It has to go from 6'' to 5 5.75''. After the piece is

Op #	Op. Name	Machine	Tool Name	# of teeth
3	Center drilling	Lathe	carbide center drill of 0.5" diameter	2

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.016	0.5	1222
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.4	39.117	N/A	0.010225785	

Drawing



Comments

CONCORDIA UNIVERSITY MANUFACTURING PROCESSES SHEET

Drawing name or number :	Tube Teal
Name of operator:	Grace Kafechina
[assistant/supervisor/etc] :	
ember responsible :	
Process approval :	/
Total Expected Duration **[min]** =	**87.32663361**

Date: Time In: Time Out:

Date: Time In: Time Out:

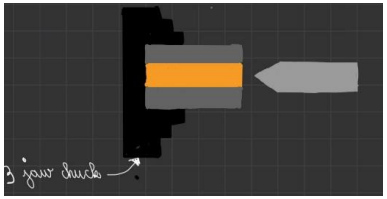
Date: Time In: Time Out:

Op #	Op. Name	Machine	Tool Name	# of teeth
4	drilling	Lathe	Carbide drill bit of 1	2

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.016	1	611
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
6	19.56	4.71	0.30677356	

Drawing



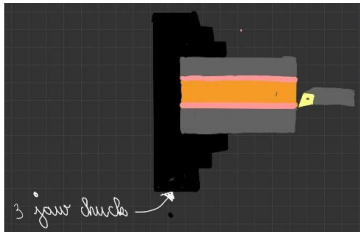
Comments

Op #	Op. Name	Machine	Tool Name	# of teeth
6	Boring	Lathe	Boring bar with carbide insert	1

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.013	5.75	106
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.1	1.38	17.64	4.342025775	

Drawing



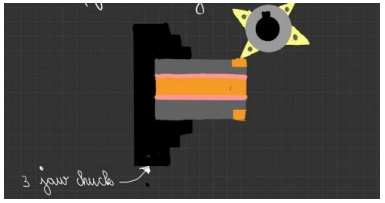
Comments

Op #	Op. Name	Machine	Tool Name	# of teeth
	Polygone turning	Lathe	carbide insert circular turning tool	4

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.013	5.7	107
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.1	5.58	24.83	0.179344543	

Drawing



Comments: MRR calculated for all material removed not per passes

CONCORDIA UNIVERSITY MANUFACTURING PROCESSES SHEET

Date:	Date:	Date:
Time In:	Time In:	Time In:
Time Out:	Time Out:	Time Out:

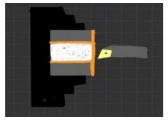
Drawing name or number :	Flange
Name of operator:	Grace Kafechina
Name of operator2 [assistant/supervisor/etc] :	/
Name of staff member responsible :	/
EIR / Process approval :	/
Total Expected Duration **[min]** =	**9.076957687**

Op #	Op. Name	Machine	Tool Name	# of teeth
1	Facing	Lathe	carbide turning/facing tool	1

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.013	8	76
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.1	0.99	3.80	2.013693113	

Drawing



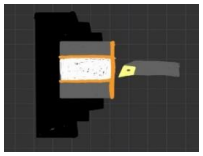
Comments: Before facing, cut a hole of about 4'' with a hole saw

Op #	Op. Name	Machine	Tool Name	# of teeth
2	Boring	Lathe	Boring nar with carbide insert	1

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.013	8	76
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.1	0.99	17.64	1.006846557	

Drawing



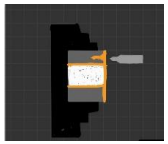
Comments:

Op #	Op. Name	Machine	Tool Name	# of teeth
3	Center	Lathe	carbide center drill	2

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.016	0.25	2445
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.2	78.23		0.002556446	

Drawing



Comments: Repeat 6 times , workholding on a 4 jaw chuck

CONCORDIA UNIVERSITY MANUFACTURING PROCESSES SHEET

Drawing name or number :	Flange
Name of operator:	Grace Kafechina
[assistant/supervisor/etc] :	/
ember responsible :	/
Process approval :	/
Total Expected Duration **[min]** =	**0.132832952**

Date: Time In: Time Out:

Date: Time In: Time Out:

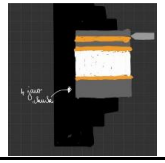
Date: Time In: Time Out:

Op #	Op. Name	Machine	Tool Name	# of teeth
4	drilling	Lathe	carbide drill bit	2

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.016	0.4	1528
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
1	48.90	6.77	0.020451571	

Drawing



Comments: Repeat for six holes , define pitch diameter before mounting

Op #	Op. Name	Machine	Tool Name	# of teeth
5	threading	Milling	thread mill	

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
			#DIV/0!
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
	#DIV/0!			

Drawing

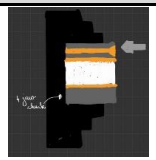
Comments:

Op #	Op. Name	Machine	Tool Name	# of teeth
6	countersinking	Lathe	countersinking drill	5

Cutting Speed, V	Tool Feed	Max Dia Tool/Part	Spindle Speed
160	0.016	0.55	1111
			Actual

D.O.C	Machine Feed	MRR	Expected Duration [min]	Actual Duration [min]
0.075	88.90		0.000843627	

Drawing



Comments: Turn the part and repeat for each hole