		P	art No.	24024	(New CNC Hydromat M	an est				
		F C N	tev. Dwg. No. Material Dycle Time	3HB01 G 21304 12L14 Steel , 29.0 Secs.	7		Code No Part: Series: Op. No. Mach. No	1	4301-880 Socket Bi INK 10 16	
	Rofer	ence D	mensions;							
1	Sta.	Axis	Operation	Upr					Set	up D
	No	No	Description	Number	Detailed	Special	Unt	Unit	Unit	
2	1	-	Load & Cutoff	5.13.013-2	Operation Description	Setup Notes	Pulloya	RPM	Rat	13
3	3	2	Insert Step Drill		Cutoff Bar to 2.580"	Saw to Collet = 20	5.4	46	3,797	1.
- 5	5	4	Fin. I.D. & Turn	6.44.002-4	Insert Step Drill I.D.		5.4	1200	5.540	1
- 33	7	7.8	Finish Profile	6.44.002-4	Fin. C'Bore I.D. & Turn 1.060 O.D.	Use Carb. Fin C'Bore	8.1	1000	5 250	1.1
	9	11,12	Pickoff & Index	6.42.005-8	Face, Finish Turn, & Groove O.D.	A	125-11	1400	1	
	9V	14	Cross Dris	5.40,013	Advance, Pickoff, Index, & Retract	Arbor Spacer + 1/3	63		1000	
	10L	- 13	and all and the local division of the local	5.49.010-2	Cross Drill (4) Taper Holes	Use 9/32" Dia. Drif.	5.4	*1050*	1.050*	3
	11	16-	Cross Drill	5.49.010-2	Cross Drill (4) Taper Holes	Use 9/32" Dia Drei	5.4	*1950*	2.600	
	and the second second	and the second se	Finish C'Bore	8.44.002-4	Brush / Deburr LD.	Use Wire Brush	5.4	787	5.800*	03
	13	19,20	Groove I.D.	6.42.005-8	Recess Groove LD & De-Chip LD.	Watch Chibs on LO	120-1	1350	0.000	1.0
2	15		Transfer Out	8.15.026-2	Transfer	1 March 199		1000		-
200	1000	-				And the second s			-	
	15	-	Transfer in	6.15.026-2	Transfer	I I I I I I I I I I I I I I I I I I I				
	2	1	Pipe Drill	6.44.002-4	Pipe Drill 3/8"-18 NPTF		8.1	550	5.250*	-
	4	3	Drill & Rgh. Turn		Rgh, Drill & Rgh, Turn 1.030 O.D.	Use Carbide Dnil	8.1	725	4.750*	310
	0	5,6	Finish Profee	6.42.005-8	Face, Turn Undercut, & Break O.D.'s	and the second s	126-8	2100	4,720	:65
	8	21	Finish C'Bore	6.44.002-4	Finish .549 LD. and Seat	Use Carbide Seat Tool	7.2	1150	5.600*	
	10	17,18	Groove LD.	6.42.005-8	Groove 6081.D.		126-1	950	-000.C	88
	12	9,10	Open Tap	6.42.005-8	Open		189.1	000		-
	- Barrationers	-	Mill Flats	5.44.049-8	Tap 3/8*-18 NPTF Mill: 870 Wrench Flats	Use Greenfield Taps	81	365	2 2144	100
	14	22	MIK PING	0.44.043-0	Mill Shu Wrench Flats		7.2	305	3.280*	120
	-	-		-				305	5.2501	120
	1	-			the second se				-	

3 8 ...

- Set ratio on cutoff saw speed control to 1:10

- Use 1/32" (.03125) spacer for drilling arbor in index unit (Sta. 9H)

- Set collet clamp pressure on index unit (Sta. 9H) to 30 bars
- " Set cutoff saw proximity switch position to 3 turns

* Use 3400 RPM for solid carbide gloss drils LL3rec -

3

Codet Information: - Ood stations use 1-1/4" Round collets (front side) - Even stations use 1.046" Round coll-3" (ack side)

Cod stations use 801-1 heads (1.151' dameter) and 801-1 er

		art No.	314	801	at Department - Presette (N-w CNC Hydromat Mar		Part N		4301-68 Souther &	
		lev.	G				Series:		JHK-	
		wg. No.	21	304			Op. No.	1	to o	
		daterial	12	L14 Stool			Mach. N		116	
	1	Cycle Time	29	I.O Seca.			Harses			
		Updated:	05	-08-07 DM						
Prese	ther Di	mensions;							TZ	1 3
230	1050	an contrast	_		Tool	Tool	Collet	Tool	Prese	Pre
TRA	Ass	Operation		Tool	Description	Holder	Size	OAL	Lom	DI
No.	N	Descriptio		Number	Ots-Haugel (60 Teeth)	Saw Blade Holder	-	1	1	1
1	-	Cutoff Stug		250 5x40	Komet Insert Step Drill	Special ABS QC Holder		3,250	5.011	
3	2	insert Step	CALC .	UV1206150 W2010130.04 BK79	Komet inserts (4)	Holder 8-6494	a Service	-	1	-
-	-	Party and	-	W2010130.04 IRCH	Carbide Finish C'Bore	PCM-83224 (ER-32)	15-16MM	3.000	3.953	
1	4	Finish C'Bo		P01-8004R 8K	Komet inserts (2)	35mm PCM Tool Blocks	The states of	and a local of	3.220	1.00
-	-	Rough Tun	-	SWGCR 8-01 (9-8+0)	Komet Holders (2)	and the second	1	-		
-	2.8	Finish Prof	-	NG-30679 X(***)0	Kennametal Insert	O.060.1032 (3NG)		-	2.425	0.37
F	1-10	T READER F LOS	_	and a second state	Kennametal Top Clamp	CM-72				0.91
19	111.1	Poot	_	0.647.0000	3HK Onling Arbor	Index Unit Assembly		1000	0.000	
2.24		the second s	SCALY.	177-8-201-2.500	3HK Taper Cross Drill	DH QC-83/32 (2)	7-88.814	2.500	3.072	-
100	-	the second se		177-8-281-2.500	3HK Taper Cross Drill	Rego Extension (ER-15)	7-8MM	25 1	8.00	
1	1-1		Stort	38736 (13/16*00)	Osborn Wre Brush	DH QC-84/40	5-6MM	5.000	0	
100	1				Rego-Fix Extension	-516.403 (ER-16)	10.00	10.0	13000	
1.1	3 1 19	20 Groevel		HU154.0078.00 TN35	PH Horn Carbide Insert	0.060.1181 (5/2" Baring)	a succession of the	COLUMN A	2.500	0,154
H	-	-	-	80114.0.500.01	PH Horn 1/2" Boring Bar		-	All many		2,104
	15	- Transfor - Transfor					-	4		
1	_	1 Yep Dri		38-18 NPTF	HSS Pipe Form Drill	DH QC-8440	18-19844	20.3	-	_
1 t	2	3 4000P		LL3H801-SD11	Carb. Double-Angle Drill	PCM-84225 (ER-32)	13-141.04	37.5 2	5.250	
	100	Rough	90	PD01-8368 BK	Komet inserts (2)	SORIN PCM Tool Blocks		4.0.00 4	.367	-
110	- 614	1000	100.77	SWGCR 8-01 (0-deg.)	Komet Holders (2)		-	- 4	.428	102
100		\$6 might		VBM1-221LF KC9025	Kennametal insert	O 000.1350 (35-deg.)	and a state of the		-	24 1.4
1.1	8	21 - mith C	THORE	LL3HB01-P11	Cartide Finish C'Bore	DH QC-84/40 0.000 1181 (1/2" Boring)	10-16AM		981 0	00
	12.1	A.10 Open	- 44	3(101-82	HSS Recess Tool	O'000 List List Boundl		2 Parts	738	-
	-14	23.24 Tap		3/81-18 NPTF (4 F3/86)	HSS Pipe Tap (TICN)	WFLK 2258AUT*			301 0	000
		22 Mill Flat	-	3001-MIC10	HSS Miling Cutters	6.10.004-2 Mill Haust	38 Post	E	205	-
	091	the second			3HK Milling Spacers	(e) (c)		- 5	000	
	1					3	3.95%		-	-
	Comp.						272	0	1	
	- 94	presetter to DU	2110	8		-				
		PRIME VOLUME TO	(drifts a	OR BAT NO THE CODOM OF THE MOST	int of the drift		Z3;	2		
		the state line and	TO DOINT	of drill				8		
	100	con angle dill a	i station	4 is set to corner of 60-degr	te angle and the share diame	Har				
		Contraction of the	800 S 18	set to Put flat culture article to	and these subjects					
		a response boos	BULL COMPLY	8 BY Carbola I D. Annie Laborer	and the state of t		270	100		
		10 C 10 PE 10 PE	100001-0	S BELLEVIER & BAR MARCHINE BARANCE	and an effective desired, one where PA PA	Sec.		inT.		
						E	0	- Are	O Q	
				to the face of the tool (not to t			075	4.2	04	They .
	- 3	NAK WARRANG ROBOT	- 225	7 is Sandvis TLGP-306291 to 9%er housing), .870 (middle	115 with top damp C3R	T	0-	20	10	1.30
		alor al sector		index of the second second). 500 (end)	10	229 55%		15	1
		OCC. NOTING for a	Country in	and an	56040 TX S/M 2x3.5 (TX8)		-15	the and	19	D
				wart drill in station 2 when	SECURITY ROLD TO STUDIES.			the second se	0	and the second se