

Hydromat Department - Unit Position Setup Sheet  
(New CNC Hydromat Machines)

|            |             |
|------------|-------------|
| Part No.   | 34801       |
| Rev.       | G           |
| Dwg. No.   | 21304       |
| Material   | 12L14 Steel |
| Cycle Time | 29.0 Secs.  |

|           |             |
|-----------|-------------|
| Code No.  | 4301-5800   |
| Part:     | Socket Body |
| Series:   | 3HK         |
| Op. No.   | 10          |
| Mach. No. | 116         |

Reference Dimensions:

[illegible]

### Special Notes

- Set saw to collet scale for cutoff saw (Sta. 1) to 20 counts
- 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 cross drills LL33-K •

## Coast International

- Odd stations use 1-1/4" Round collars (front side)
- Even stations use 1.046" Round collars (back side)

**Factor Information:**

- \* Odd stations use 801-5 heads (1.121" diameter) and 801-7  
even stations use 801-1 heads.

# Hydromat Department - Presetter (Low CNC Hydromat Machine)

Part No. 3HB01  
Rev. G  
Dwg. No. 21304  
Material 12L14 Steel  
Cycle Time 29.0 Secs.  
Updated: 05-08-07 DM

Code No. 4301-8800  
Part: Socket Body  
Series: 3HBK  
Op. No. 10  
Mach. No. 116

## Presetter Dimensions:

| Sta No. | Axis No. | Operation Description | Tool Number            | Tool Description         | Tool Holder              | Collet Size | Tool OAL | Preset Lgth | Preset DIA |
|---------|----------|-----------------------|------------------------|--------------------------|--------------------------|-------------|----------|-------------|------------|
| 1       | -        | Cutoff Slug           | 2500-5x40              | Os-Haugel (60 Teeth)     | Saw Blade Holder         |             |          |             |            |
| 3       | 2        | Insert Step Drill     | UV1205150              | Komet Insert Step Drill  | Special ABS QC Holder    |             | 3.250    | 5.011       |            |
|         |          |                       | W2010130.04 BK79       | Komet Inserts (4)        | Holder B-6404            |             |          |             |            |
| 5       | 4        | Finish C/Bore         | LL3HB01-P14            | Carbide Finish C/Bore    | PCM-83224 (ER-32)        | 15-16MM     | 3.000    | 3.952       |            |
|         |          | Rough Turn            | P01-8504R BK           | Komet Inserts (2)        | 35mm PCM Tool Blocks     |             |          | 3.720       | 1.065      |
|         |          |                       | SWGCR B-01 (2-deg.)    | Komet Holders (2)        |                          |             |          |             |            |
| 7       | 7.5      | Finish Profile        | NO-3062R KC730         | Kennametal Insert        | O.090.1032 (3NG)         |             |          | 2.425       | 0.375      |
|         |          |                       |                        | Kennametal Top Clamp     | CM-72                    |             |          |             |            |
| 9       | 11.12    | Pickoff               | O.047.0028             | 3HK Drilling Arbor       | Index Unit Assembly      |             |          | 0.000       |            |
| 9V      | 22       | Cross Drill (C/B)     | 177-B-201-2.500        | 3HK Taper Cross Drill    | OH QC-8332 (2)           | 7.6MM       | 2.500    | 3.072       |            |
| 9L      | 23       | Cross Drill (C/B)     | 177-B-201-2.500        | 3HK Taper Cross Drill    | Rego Extension (ER-16)   | 7.6MM       | 2.500    | 5.000       |            |
| 11      | 16       | Brush I.D.            | 36735 (13/16" OD)      | Osborn Wire Brush        | OH QC-8440               | 5-6MM       | 5.000    | 2.000       |            |
|         |          |                       |                        | Rego-Fix Extension       | 515.403 (ER-16)          |             |          |             |            |
| 13      | 19.20    | Groove I.D.           | BU114.0078.00 TND5     | PH Horn Carbide Insert   | O.090.1181 (1/2" Boring) |             |          | 2.500       | 0.154      |
|         |          |                       | BU114.0.500.01         | PH Horn 1/2" Boring Bar  |                          |             |          |             |            |
| 15      | -        | Transfer Out          |                        |                          |                          |             |          |             |            |
| 16      | -        | Transfer In           |                        |                          |                          |             |          |             |            |
| 2       | 1        | Tap Drill             | 3/8"-18 NPTF           | HSS Pipe Form Drill      | OH QC-8440               | 18-19MM     | 3.125    | 5.250       |            |
| 4       | 3        | Rough Drill           | LL3HB01-S011           | Carb. Double-Angle Drill | PCM-84225 (ER-32)        | 13-14MM     | 4.000    | 4.362       |            |
|         |          | Rough ID              | P001-8308 BK           | Komet Inserts (2)        | 50mm PCM Tool Blocks     |             |          | 4.428       | 1.000      |
|         |          |                       | SWGCR B-01 (0-deg.)    | Komet Holders (2)        |                          |             |          |             |            |
| 6       | 5.6      | Finish Profile        | VBMT-221LF KC9025      | Kennametal Insert        | O.090.1356 (35-deg.)     |             |          |             |            |
| 8       | 21       | Finish C/Bore         | LL3HB01-P11            | Carbide Finish C/Bore    | OH QC-8440               | 15-16MM     | 4.000    | 1.991       | 0.000      |
| 10      | 17.18    | Groove I.D.           | 3H01-F2                | HSS Recess Tool          | O.090.1181 (1/2" Boring) |             |          | 4.738       |            |
| 12      | 8.30     | Open                  |                        |                          |                          |             | 2.500    | 2.321       | 0.000      |
| 14      | 23.24    | Tap                   | 3/8"-18 NPTF (4 Flute) | HSS Pipe Tap (TiCN)      | WFLK 2258M/1*            | 3/8" Pipe   |          |             |            |
| 14V     | 32       | Mil Flats             | 3001-MC10              | HSS Milling Cutters      | 6.10.004-2 Mill Head     |             |          | 6.295       |            |
|         |          |                       |                        | 3HK Milling Spacers      |                          |             |          | 3.000       |            |

## Notes:

- Set presetter to DIA mode to set diameter on holders for 2-axis CNC units
- All preset values for drills are set to the corner of the point of the drill
- Cross drills are set to point of drill
- Double-angle drill in station 4 is set to corner of 60-degree angle and the shank diameter
- Finish c/bore in station 5 is set to the flat cutting edge (not the pilot)
- Use Rego-Fix coolant discs for carbide I.D. tools where required
- MUST use .015 R. insert in station 6 for proper breaks and surface finish on part O.D.
- Set station 8 seating tool to corner of .548 diameter and 30-degree angle
- Set station 10 recess tool to the face of the tool (not to the cutting edge)
- Alternate insert for station 7 is Sandvik TLGP-3062R 1015 with top clamp C3R
- 3HK milling spacers: .225 (near housing), .870 (middle), .500 (end)

\* Tap screw for Komet insert drill in station 3 = N00-56040 TX 5/16 2x3.5 (TXR)

3.952  
2.720  
232

.229 distance from  
End of 5th C/Bor  
To 5th 2nd Ry Tex