



# BOURN & KOCH INC

## O.E.M. PRODUCTS

### Bourn & Koch Horizontal Gear Hobbers

25H CNC	1" x 4" Capacity
100H CNC	5" x 20"-32" Capacity
200H CNC	8" x 52"-72" Capacity
400H CNC	18" x 52"-72" Capacity
600H CNC	25" x 100"-148" Capacity

### Bourn & Koch Vertical Gear Hobbers

650V	650mm x 400mm Capacity
1280V	1280mm x 800mm Capacity
2550V	2550mm x 1000mm Capacity

### Fellows Gear Shapers

#### Mechanical Stroking:

10-04	10" x 4" Capacity
20-04	20" x 4" Capacity
MS 300	300 mm x 125mm
MS450	450mm x 125mm Capacity
MS650	650mm x 125mm Capacity

#### Rack Shaper: 10-04RS

#### Steering Sector Shaper: 4-3SS 4" x 3" Capacity

#### Hydraulic Stroking:

HS450	450mm x 200mm Capacity
HS650	650mm x 200mm Capacity
HS1280	1280mm x 300mm Capacity
HS2550	2550mm x 300mm Capacity

### Bourn & Koch Vertical Gear Grinders

500 VG CNC	19.685" x 12" Capacity
900 VG CNC	31.5" x 12" Capacity
1000 VG CNC	39.37" x 12" Capacity
1400 VG CNC	55.118" x 11.8" Capacity

### Hob & Shaper Cutter Inspection Systems

HSC 100-001	9" x 16" Capacity
CMU130	5.11" Capacity

### Roto-Check Gear Inspection Systems

RC400-12, RC400-16, RC400-36 and Rotor-Check

### Motch Turning Centers

119 VNC Chucker	20" Capacity
125 VNC Chucker	25" Capacity
135 VNC Chucker	35" Capacity
142 VNC Chucker	42" Capacity
152 VNC Chucker	52" Capacity
219 VNC Twin Chucker	20" Capacity
225 VNC Twin Chucker	25" Capacity
235 VNC Twin Chucker	35" Capacity
SL200 Twin Spindle	8" Capacity
MVSL200 Self-loading	12" Capacity
MVSL450 Self-loading	22" Capacity

### Springfield Vertical Grinders

36CNC Vert. Grinder	44" Swing x 18" depth
42CNC Vert. Grinder	50" Swing x 18" depth
48CNC Vert. Grinder	60" Swing x 18" depth
62CNC Vert. Grinder	68" Swing x 27.5" depth

### Blanchard Rotary Grinders

8AD-12	14" Swing x 5.5" height
11AD-20	21" Swing x 12" height
20AD-36	48" Swing x 24" height
22AD-42	48" Swing x 24" height
26AD-48	56" Swing x 24" height
32AD-60	72" Swing x 24" height

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## O.E.M. PRODUCTS *continued*

36AD-66	84" Swing x 24" height
42AD-84	96" Swing x 33" height
54AD-100	128" Swing x 33" height
72AD-120-144	144" Swing x 33" height
76AD-120-164	164" Swing x 60" height

### Acme Multi Spindle Machines

7/16" RA-6	6 Spindle
1" RAN-6	6 Spindle
1-1/4" RB-8	8 Spindle
1-1/4" RA-6	6 Spindle
1-1/4" HP-6	6 Spindle High Precision
1-5/8" RB-8	8 Spindle
1-5/8" RBN-8	8 Spindle
1-5/8" HPN-8	8 Spindle High Precision
2" RB-8	8 Spindle
2-3/8" HSC-6	6 Spindle High Speed Chucker

### Extrusion Milling Machines

EMC-12 Extrusion Milling Machine  
Up to 12 CNC axis including contouring capabilities.

### Rotary Transfer & Rotary Trunion Machining Centers

Designed around the customers specialized needs based on a modular design for easy change overs.

### Special Purpose Machining Centers

Special application machines for special applications which are not addressed by standard machine builders.

### Roto-Grind Precision Rotary Tables

Both toolroom and laboratory applications

### Specialty Machines

We specialize in designing engineering & manufacturing solutions for our customers requirements. We would be happy to review your requirements.

## REMANUFACTURED/RETROFITTED PRODUCTS

### Gear Hobbers, Shapers, Grinders

Barber Colman, Bourn & Koch, Fellows, Gleason, Liebherr, Pfauter, Red Ring

### Gear Inspection Systems

ITW, M & M, Roto-Technology

### Grinders

Brown & Sharp, Bryant, Cone-Blanchard Mattison, Norton, Springfield

### Gantry Machines

Ingersoll, Ekstrom Carlson, Cincinnati

### Lathes - Vertical/Horizontal

American Tool Inc., Bullard, Cincinnati Milacon, Jones & Lamson, Motch

### Machining Centers/ Boring Mills

DeVlieg, Futurmill, Giddings & Lewis, Gray, Kearney & Trecker, Rockford Machine Tool, White Sundstrand

### Multi Spindle Machines

Acme-Gridley, Bourn & Koch, Conomatic, Kingsbury, New Britain

### Rotary Tables

M & M, Pratt & Whitney, Roto-Technology

## O.E.M. REPLACEMENT PARTS

### Gear Manufacturing Machines

Barber Colman	(815) 965-4082
Bourn & Koch	(815) 965-4082
Fellows	(802) 674-6500
Roto-Technology	(937) 859-8503

### Turning Centers/VTL's/Lathes

American Tool Inc.	(800) 248-8121
Bullard	(800) 248-8122
Jones & Lamson	(802) 674-6500
Motch	(800) 728-8602
New Britain	(800) 243-4542
Sheldon Lathe	(800) 553-2263

### Machining Centers/Boring Mills

Bullard	(800) 248-8122
DeVlieg	(800) 248-8120
Futurmill	(800) 248-8120
Rockford Machine Tool	(800) 248-8120
Universal Boring	(800) 248-8122
White Sundstrand	(800) 248-8120

### Grinders

Brown & Sharpe	(800) 759-0100
Cone-Blanchard	(800) 528-5932
Mattison Grinders	(800) 248-8126
Springfield	(800) 728-8602

### Multi Spindle Machines

Acme-Gridley	(800) 553-2263
Bullard Multi-au-matic	(800) 248-8122
Conomatic	(800) 528-5932
New Britain / Mideastern	(800) 243-4542
Bourn & Koch	(815) 965-4082

### Other Machines

Ferguson	(815) 965-4082
Mattison Woodworking	(800) 248-8126
Rockford Punch Press	(800) 248-8125

### Rotary Tables

Roto-Grind	(937) 859-8503
Golden Sun	(937) 859-8503

## SERVICES

**Field Service.** service contracts, preventative maintenance, on-site retrofits on all of the above product lines and the **INGERSOLL** product line

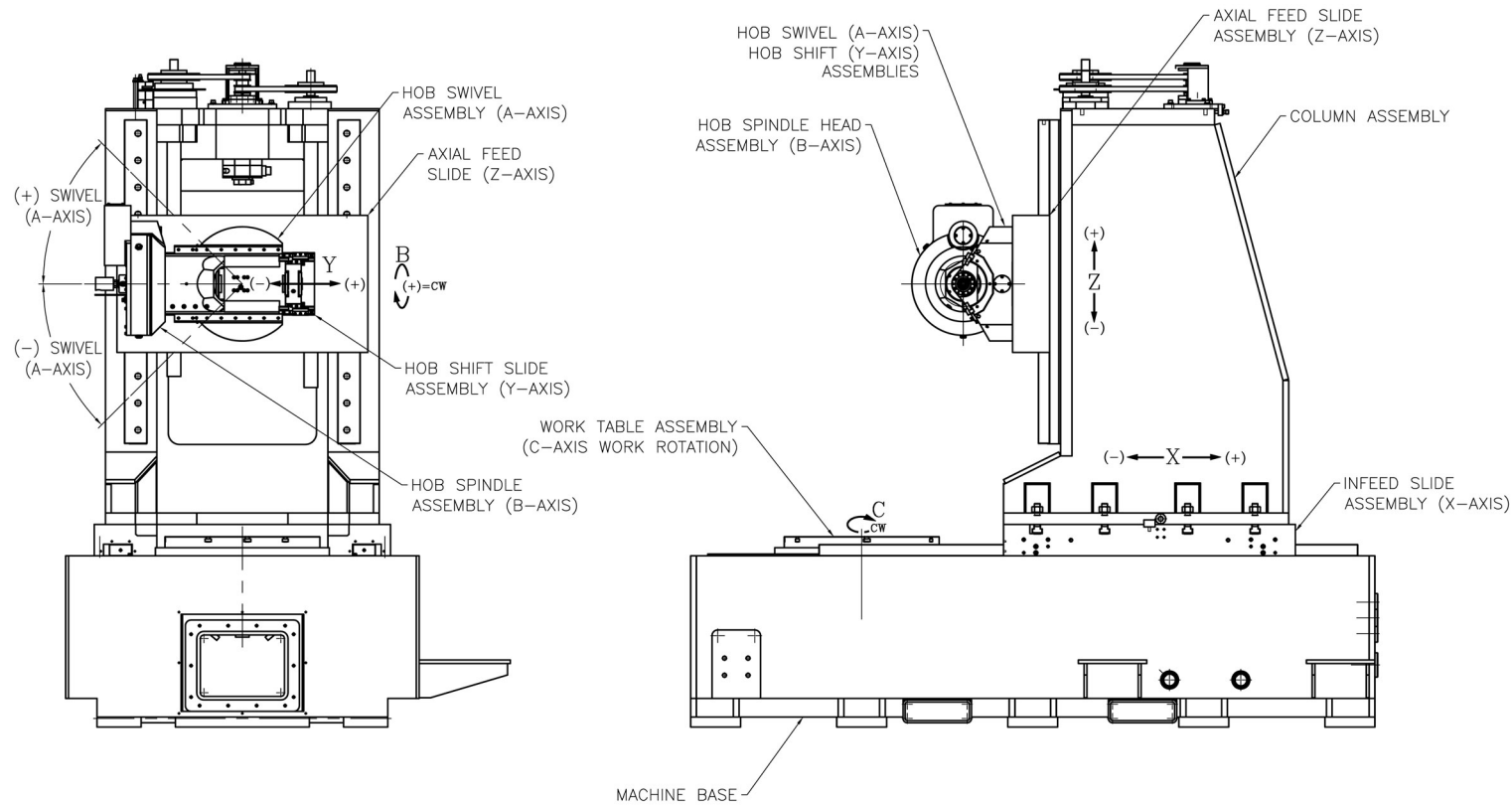
Direct lines for service **(800) 248-8130** or **(815) 965-4013 Ext.310**



## Vertical Series *Hobbers*



2500 Kishwaukee St.  
Rockford, IL 61104  
☎ 815/965-4013  
fax 815/965-0019  
www.bourn-koch.com  
bournkoch@worldnet.att.net



### Kinematics:

- B: Hob Rotation
- C: Table Rotation
- X: Infeed Movement
- Z: Axial Movement
- Y: Hobshift/Tangential Travel
- A: Hob Swivel

### Features

Vertical Hobber with Fanuc 31iB CNC

### System:

1. Pendant Mounted console with menu driven 381 mm (15") color LCD touch screen.
  - a. Pentium IV, 1.8 GHz
  - b. RS-232 Ports
  - c. USB Interface
  - d. CD-RW
  - e. Full Qwerty Keyboard w/Mouse
  - f. Storage for approx. 40 GB
  - g. Manual Pulse Generator
  - h. Air conditioned electrical control panel
  - i. GFI Duplex outlet (120 V AC)
  - j. Pendant control station with MPG for setup

Function controls and keypads for online direct entry of hobbing data. Switchable metric/inch operation. Programmable tool and work offsets.

Modular hardware and software for easy expansion and interfacing with automation equipment available for additional charge.

### Diagnostics and Error Prevention:

- a. Descriptive error messages and CRT display of ladder logic.
- b. Setup data checked against machine limits.
- c. Automatic calibration of process sensors.

### Operator's Menu:

- a. Hob Configuration Menu
- b. Part setup menu
- c. On line diagnostics
- d. Cycle Counter
- e. Cycle Timer

### Optional Features

#### Hardware

- Integrated part marking
- Deburring systems
- Quick change tooling
- Manual tool change assist
- Light curtain
- Auto part clamping
- Uninterrupted Power System
- Chip conveyor - Rear
- Chip conveyor - Front

#### Software

- Near Net cycles
- Tool shifting cycles
- Programmable taper
- Programmable crowning
- Remote diagnostics

Technical Data	650V		1280V		2550V	
	Metric	English	Metric	English	Metric	English
<b>Bourn &amp; Koch Vertical Series Hobbers</b>						
<b>Basic Capacity</b>						
Maximum Workpiece	650 mm	25.6"	1280 mm	50"	2550 mm	100"
Maximum Face Width	400 mm	15.75"	800 mm	31.5"	1000 mm	39.4"
Maximum Helix Angle	+/- 45 deg	+/- 45 deg	+/- 45 deg	+/- 45 deg	+/- 45 deg	+/- 45 deg
Maximum Hob Diameter	203.2 mm	8"	254 mm	10"	304.8 mm	12"
Maximum Hob Length	203.2 mm	8"	203.2 mm	8"	254 mm	10"
Maximum Hob Speed	300 RPM	300 RPM	250 RPM	250 RPM	200 RPM	200 RPM
Hob Spindle Drive Power	15 Kw	20 HP	30 Kw	40 HP	35 Kw	45 HP
Maximum Courseness	12.7 mod	2 NDP	20 mod	1.25 NDP	25 mod	1 NDP
Work Table Diameter	690 mm	27.2"	1120 mm	44"	2130 mm	83.85"
Maximum Swing Diameter	1000 mm	39.4"	1295 mm	51"	2840 mm	111.8"
Maximum Table Speed	60 RPM	60 RPM	30 RPM	30 RPM	25 RPM	25 RPM
Maximum Table Load	5,000 Kg	11,000 lbs	20,000 Kg	44,000 lbs	40,000 Kg	88,000 lbs
Table Drive System	Integral Motor		Integral Motor		Integral Motor	
Control System	Fanuc 31i / Simens 840D		Fanuc 31i / Simens 840D		Fanuc 31i / Simens 840D	
<b>Dimensions</b>						
"A" Maximum Overall Width	2470 mm	98"	3300 mm	129.92"	3910 mm	154"
"B" Maximum Height	3125 mm	123"	3550 mm	139.76"	4240 mm	167"
"C" Maximum Overall Length (Depth)	5334 mm	210"	5380 mm	211.81"	6985 mm	275"
<b>Weight</b>						
Approx. Net weight with motors	17195 Kg	38000 lbs	31751 Kg	70000 lbs	36000 Kg	80000 lbs

### Remarks

The above mentioned technical data is subject to change without notice. Maximum swing can be increased based on location or weight.

