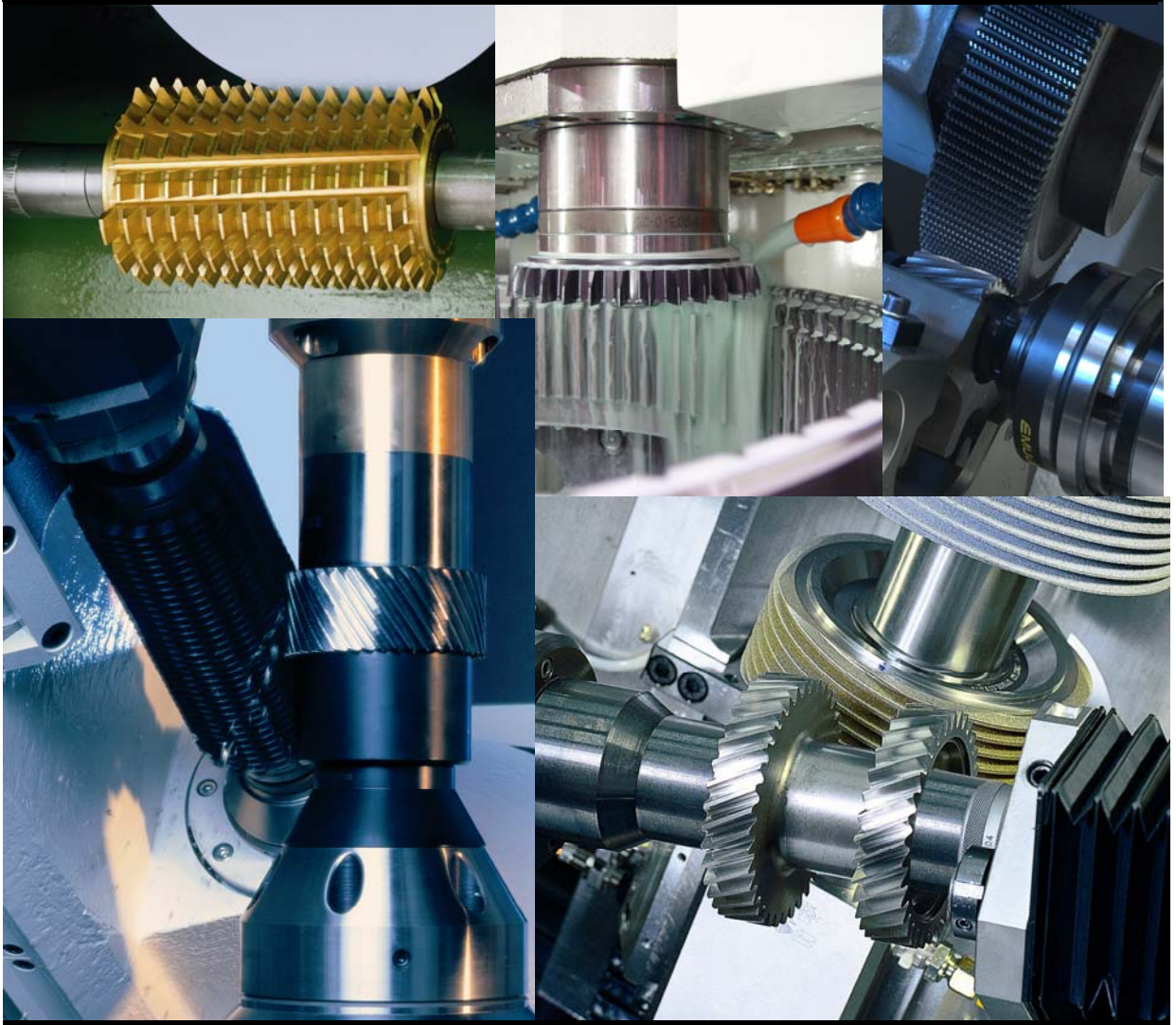




MACHINE TOOLS

AND SERVICES





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INTRODUCTION





STAR SU LLC

Star SU LLC is a selling cooperative made up of the three (3) partner companies of:

- Star Cut Sales, Inc., Farmington Hills, MI
- SU America, Inc., Hoffman Estates, IL, a unit of Samputensili SpA of Bologna, Italy
- Bourn & Koch Inc., Rockford, IL

Star SU is the go-to-market cooperative managed by a board made up of the senior management of the 3 partner companies. Its purpose is to reduce the cost of getting to the market by consolidating common Human Resource & Benefit administration, IT administration, direct selling personnel, advertising, exhibitions and marketing initiatives and sales and sales engineering management.

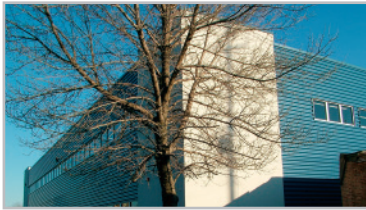
The consolidation results in a leaner, more cost effective go-to-market initiative than each company having its own duplicate sales, marketing, HR and IT departments.

Star SU is not a manufacturer's representative. It is the direct sales organization for the 3 partnered companies. As a selling cooperative for the 3 partnered companies, Star SU has 42 direct sales people calling in North America.



STAR CUTTER COMPANY

Star Cutter Company was founded in 1927 by Howard B. Lawton and Frank Burgess. The company was started in a leased portion of a building on Epworth Boulevard in Detroit, Michigan. During its first year of operation, Star Cutter Company employed nine to ten employees. The main customers at the time were Chrysler and Chevrolet Gear and Axle. From this small beginning, Star Cutter Company has developed into a world leader in the cutting tool industry with eight manufacturing facilities within four manufacturing divisions, which produce seven product lines. Each manufacturing facility specializes in producing a specific type of product or service. This structure provides maximum product quality and control. Headquartered in Farmington Hills, Michigan, Star Cut Sales, Inc. is a wholly owned subsidiary of Star Cutter Company and provides the Michigan central office presence for Star Cutter management and Star SU's selling team. This extended group is an international organization of marketing specialists, service technicians and direct salespeople augmented by manufacturer's agents in the U.S., Canada, Mexico and throughout the world.



BOURN & KOCH MACHINE TOOL COMPANY

Bourn & Koch Machine Tool Company has manufactured precision machine tool products since 1975, which included the purchase of the Barber-Colman line of gear manufacturing machines. The Rockford plant offers 130,000 square feet of working space and a staff of highly skilled engineers and technicians. Bourn & Koch manufactures new, rebuilds, remanufactures, retrofits and recontrols gear cutting machines, gear inspection machines, gear grinding machines, vertical grinding centers, rotary surface grinding machines, vertical spindle turning centers and multi-spindle screw machines.



SU AMERICA

SU America is a unit of Samputensili S.p.A., which is the machine tool unit of the Maccaferri Industrial Group, a multinational organization, which operates in various diverse fields around the world, employing over 3,200 people. Samputensili offers a complete range of gear manufacturing equipment and gear tools through three main business units, which focused on a specific field: machine tools, gear cutting tools and rotor technology. Combining the expertise of these three product lines means Samputensili can provide complete manufacturing solutions for various gear technology requirements in the automotive industry, the machine and power tool industry, construction, the mining industry, earth moving equipment manufacturers, hydraulic pump manufacturers, gearbox producers, elevator and crane manufacturers, aerospace, energy, shipbuilding and the medical industry. The company has production facilities in Italy, Germany, Brazil, France, USA, China and Korea and operates through numerous sales offices with representatives around the world.



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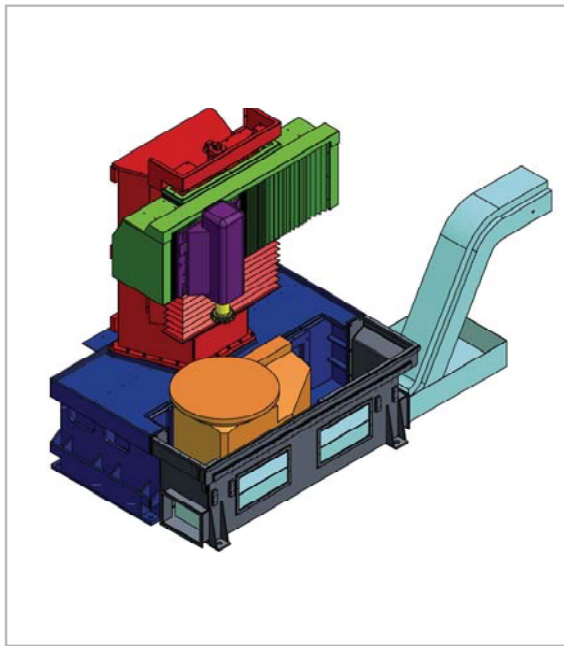
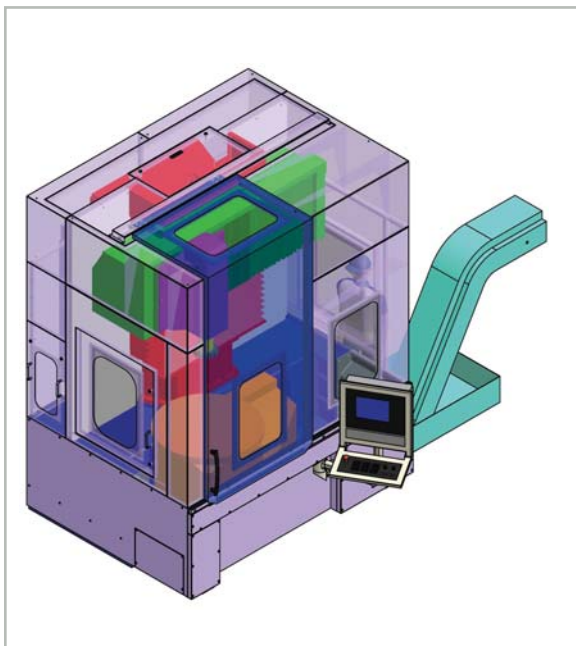
Star SU LLC, Hoffman Estates/Illinois



- Tools Service Center
- Tools Manufacturing Site
- Tools Service Center – Planned

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STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch 1000VBS CNC Shaper is a four (4) axes CNC stroking gear shaper with a Siemens 840D control for shaping internal and external gears.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.

Technical Data - Capacities & Limits

Maximum Dia. Swing up to 430 mm off table	1000 mm
Maximum Dia. Swing above 430 mm off table	850 mm
Nominal PD, External	1000 mm
Nominal PD, Internal	915 mm
Maximum Face Width	200 mm
Maximum Module, Spur	8.5
Maximum Module, Helical	5
Maximum Helix Angle	45°
Worktable Diameter	800 mm
Maximum Load on Worktable	2000 Kg
Cutter Spindle Stroking Range	30-200 SPM
Cutter Spindle Diameter	127 mm
Stroking Spindle Motor Power	15 Kw
Height (approximate)	2240 mm
Length (approximate)	2090 mm
Width (approximate)	1410 mm
Weight (Approximate Net)	16,364 kg

1000VBS

CNC Gear Shaping Machine

Standard Equipment	
Description	
Heavy stress relieved steel weldment base	
Heavy stress relieved steel weldment column	
Cross slide	
Vertical columns are heavy, one-piece weldment	
Self contained integral torque motor for workspindle	
Self contained integral torque motor for cutterspindle	
Automatic CNC controlled lubrication of guide ways and ball screws	
Siemens 840D CNC Control	
Programming of strokes per minute	
Programming of cutter infeed rate	
Programming of cutter infeed rate & rotary feed	
Automatic programmable stroke length	
Programming of number of cuts	
Programming of finish cut depth	
Cutter auto top positioning	
Synchronization of cutter and work spindle	
Quick truing of cutter and work spindles during setup	
HMI for programming in conversational language	
Dry floor machine enclosure with sliding door	
Leveling screws	
Work Light	
Paint: One standard Polane color	
Documentation	
CE compliant	
ANSI and NFPA compliant	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Mist collector	
Automatic magnetic chip conveyor	
Manual quick change cutter mechanism	
CNC controlled electronic guide	
Remote hand held station	
Hydraulically operated, retractable tailstock	
Part clamping cylinder	
Automatic enclosure door	
Automatic programmable stroke position	
Quick returning stroking mechanism	
Cutter adapter 1.75"	
Cutter adapter 1.25"	
Workholding fixturing	
Gear shaper cutters	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

Submit a
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HS650-200

B&K Fellows CNC Hydrostroke™ Gearless Gear Shaper

GEARLESS GEAR SHAPER

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Fellows HS650-200 Hydrostroke™ is a six (6) axis CNC hydraulic stroking gear shaper with variable quick return stroking, direct drive spindles, electronic indexing, elevating cutter spindle housing, Fanuc 30iB CNC touch screen control, for shaping internal and external gears.



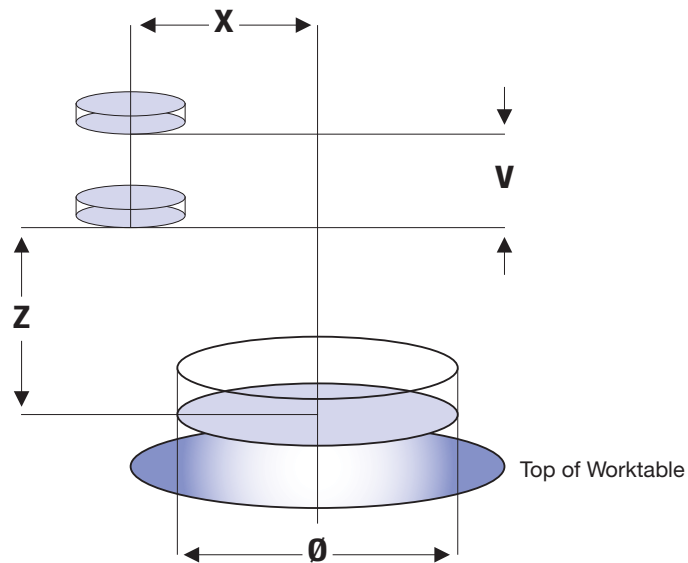
Technical Data - Capacities & Limits

Nominal PD (external)	650 mm
Nominal PD (internal)	635 mm
Maximum Module	12.7 mod
Maximum Face Width	200 mm
Worktable Diameter	690 mm
Cutter Spindle Stroking Range	20-500 spm
Cutter Spindle Diameter	120 mm
Maximum Part Swing Diameter	1000 mm
Cutter spindle slide travel	300 mm
Height (Approximate)	3125 mm
Length (Approximate)	5334 mm
Weight (Approximate Net)	17195 kg

Technical details subject to change without notice.

		Max. (mm)	Min. (mm)
Nominal work diameter	ϕ	650	~
Center distance	X	584.2	-10
Maximum work swing diameter		1000	
Cutter spindle diameter (mm)		120	~
Face width range	V	200	0
Stroke length		250	0
Axial slide position (spindle face to table)	Z	758	203.2

Technical details subject to change without notice.
Submit drawings for workplace interference study.



Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.

ϕ = Nominal Workpiece Diameter; X= Center Distance;
V= Face Width Range;
Z = Axial Cutter Slide Position Above Table Top

HS650-200

B&K Fellows CNC Hydrostroke™ Gearless Gear Shaper

Standard Equipment

Description
Base machine with GE Fanuc 30iB CNC control
Hydrostatic spur guide
Pendant mounted console, 15" color LCD touch screen
GFI Duplex outlet (120 VAC)
Manual pulse generator, inch/metric switchable
Storage for approx. 100 part programs
Diagnostics and error prevention
Function controls and keypads for direct entry of gear shaping data
Operator's menu with cutter configuration menu, part setup menu, on-line diagnostics, cycle counter, cycle timer
6 axis control using AC Servo Direct Drives:
Electronic index drive for synchronizing of cutter and work rotation
Stroking speed
Stroking position
Work spindle rotation
Cutter spindle rotation
Infeed speed and position
Stroke length
Adaptive process control for optimizing chip load
Automatic compensation of temperature dependent CD changes
Servo stroke positioning of cutter spindle
Selectable number of cuts
Programmable, multi-surface cutting capability
Programmable infeed and rotary feed
Oriented Stiffness Back-Off™, servo driven for taper and crown
Water cooled heat exchanger for direct drives (requires plant water)
Hydraulic system, free standing 100 gal. HPU
Lubrication system
Coolant system, chip basket, optional chip conveyor
Full machine enclosure
Paint: Sherwin Williams Swiss Dotted Off-White
Documentation
Work lamp, high intensity
Manufactured in USA
Standard Equipment Total (\$):

Optional Equipment

Description	Price (\$)
Hydrostatic helical guide	
Electronic door open and close	
Quick change cutter mechanism	
Automatic hydraulic through hole fixture clamping unit	
Automatic tool change mechanism for storage of up to (8) tools	
Stand alone liquid chiller unit for cooling direct drives	
Hydraulic work clamp cylinder assembly	
48" discharge height magnetic chip conveyor (rear discharge)	
CNC controlled cutter offset	
Hydraulically operated, retractable tailstock	
Workholding fixturing	
Gear shaper cutters	
Training Programs	
CE certification for EU destinations	
Optional Equipment Total (\$):	

Total Cost:

Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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HS1280-300

B&K Fellows CNC Hydrostroke™ Gearless Gear Shaper

GEARLESS GEAR SHAPER

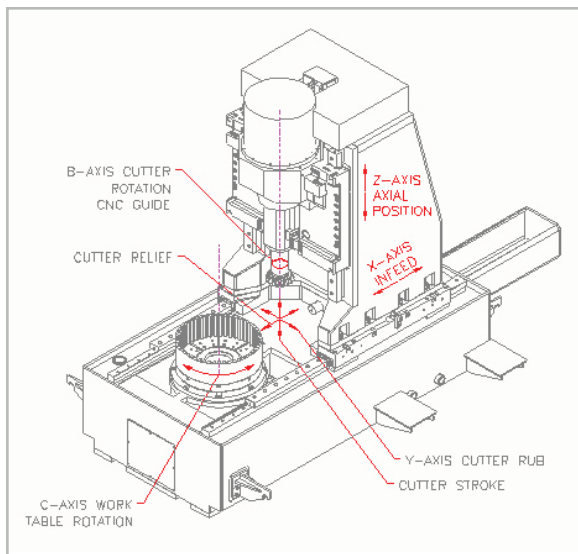
STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Fellows HS1280-300 Hydrostroke™ is a six (6) axis CNC hydraulic stroking gear shaper with variable quick return stroking, direct drive spindles, electronic indexing, elevating cutter spindle housing, and Fanuc 30iB CNC touch screen control for shaping internal and external gears.

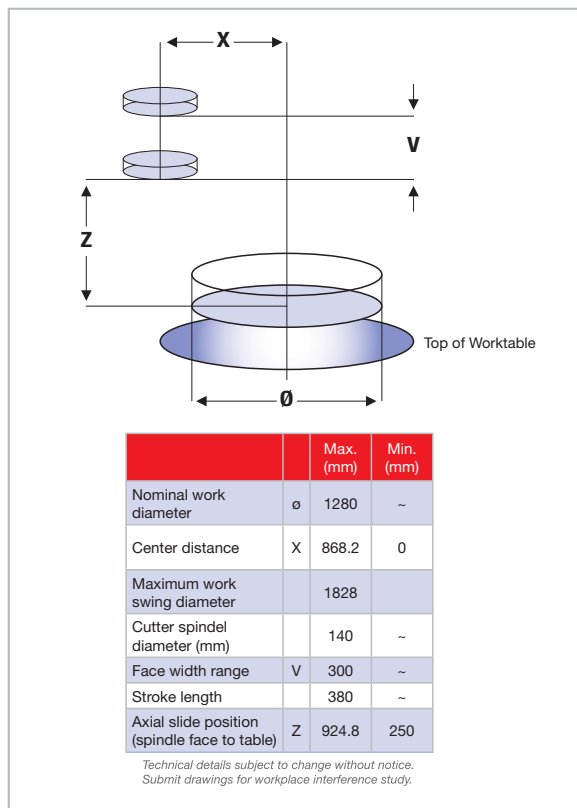
Technical Data - Capacities & Limits

Nominal PD (external)	1270 mm
Nominal PD (internal)	1270 mm
Maximum Module	12.7 mod
Maximum Face Width	300 mm
Maximum Stroke Length	380 mm
Worktable Diameter	1120 mm
Cutter Spindle Stroking Range	20-500 spm
Cutter Spindle Diameter	140 mm
Maximum Part Swing Diameter	1828 mm
Cutter spindle slide travel	300 mm
Width (Approximate)	3300 mm
Height (Approximate)	3550 mm
Length (Approximate)	5380 mm
Weight (Approximate)	31751 kg

Technical details subject to change without notice.



Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.



Ø = Nominal Workpiece Diameter; X= Center Distance; V= Face Width Range; Z = Axial Cutter Slide Position Above Table Top

HS128O-300

B&K Fellows CNC Hydrostroke™ Gearless Gear Shaper

Standard Equipment

Description
Base machine with GE Fanuc 30iB CNC control
Hydrostatic spur guide
Pendant mounted console, 15" color LCD touch screen
GFI Duplex outlet (120 VAC)
Manual pulse generator, inch/metric switchable
Storage for approx. 100 part programs
Diagnostics and error prevention
Function controls and keypads for direct entry of gear shaping data
Operator's menu with cutter configuration menu, part setup menu, on-line diagnostics, cycle counter, cycle timer
6 axis control using AC Servo Direct Drives:
Electronic index drive for synchronizing of cutter and work rotation
Stroking speed
Stroking position
Work spindle rotation
Cutter spindle rotation
Infeed speed and position
Stroke length
Adaptive process control for optimizing chip load
Automatic compensation of temperature dependent CD changes
Servo stroke positioning of cutter spindle
Selectable number of cuts
Programmable, multi-surface cutting capability
Programmable infeed and rotary feed
Oriented Stiffness Back-Off™, servo driven for taper and crown
Water cooled heat exchanger for direct drives (requires plant water)
Hydraulic system, free standing 200 gal. HPU
Lubrication system
Coolant system, chip basket, optional chip conveyor
Full machine enclosure
Paint: Sherwin Williams Swiss Dotted Off-White
Documentation
Work lamp, high intensity
Manufactured in USA
Standard Equipment Total (\$):

Optional Equipment

Description	Price (\$)
Hydrostatic helical guide	
Electronic door open and close	
Quick change cutter mechanism	
Automatic hydraulic through hole fixture clamping unit	
Standalone liquid chiller unit for cooling direct drives	
Hydraulic work clamp cylinder assembly	
48" discharge height magnetic chip conveyor (rear discharge)	
Workholding fixturing	
Gear shaper cutters	
Training programs	
CE certification for EU destinations	
Optional Equipment Total (\$):	

Total Cost:

Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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MS300-125

B&K Fellows CNC Gear Shaper

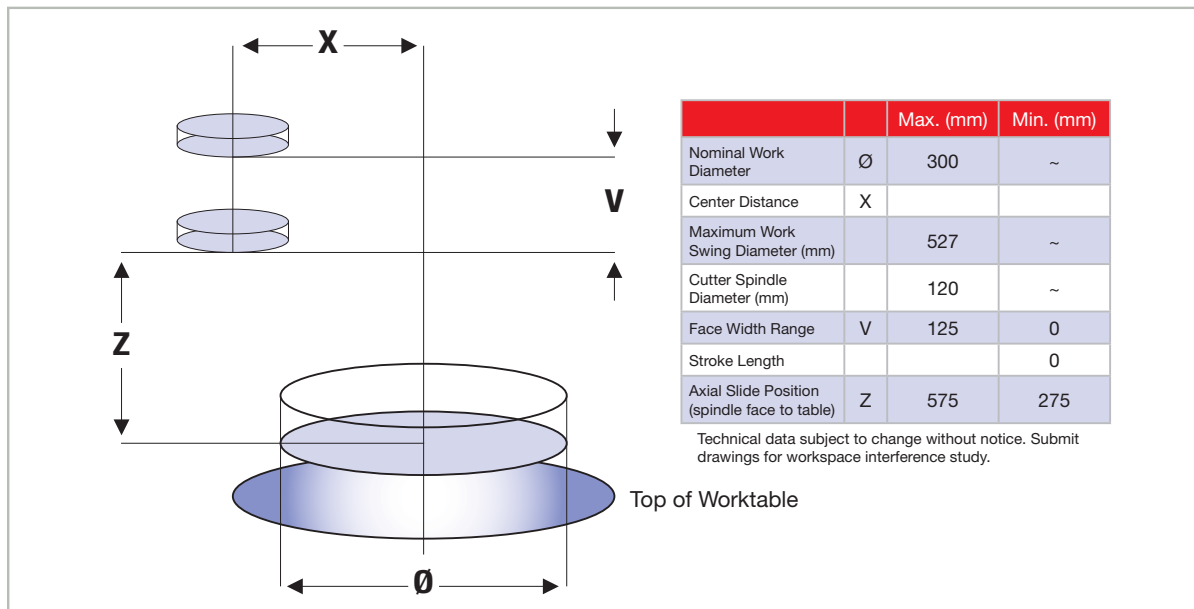
STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Fellows MS300-125 is a seven (7) axis CNC mechanical stroking gear shaper with GE Fanuc 16i control, electronic indexing, and elevating cutter spindle housing for shaping internal and external gears.

Technical Data - Capacities & Limits

Nominal PD (external)	305 mm
Nominal PD (internal)	305 mm
Maximum Module	6.35 mod
Maximum Face Width	125 mm
Maximum Helix Angle	45°
Worktable Diameter	350 mm
Cutter Spindle Stroking Range	50-2000 spm
Cutter Spindle Diameter	100 mm
Maximum Part Swing Diameter	527 mm
Cutter spindle slide travel	300 mm
Height (Approximate)	3100 mm
Length (Approximate)	3385 mm
Width (Approximate)	2176 mm
Weight (Approximate Net)	7030 kg

Technical details subject to change without notice.



Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.

Ø = Nominal Workpiece Diameter; X= Center Distance; V= Face Width Range; Z = Axial Cutter Slide Position Above Table Top

MS300-125

B&K Fellows CNC Gear Shaper

Standard Equipment	
Description	
Base machine with GE Fanuc 16i CNC control	
Hydrostatic spur guide	
Quick change cutter system	
Machine mounted console, 10" color LCD touch screen	
Inch/metric inputs/outputs	
Tool offsets	
Manual pulse generator, inch/metric switchable	
Diagnostics and error prevention	
7 axis control using AC Servo Direct Drives:	
Stroke drive	
Rotary feed drive	
Infeed drive	
Electronic index drive	
Cutter relief drive	
Cutter elevate drive	
Stroke length	
Selectable number of cuts	
Programmable, multi-surface cutting capability	
Programmable infeed and rotary feed	
Lubrication system	
Coolant system 210 liter, chip basket, nested chip conveyor	
Full machine enclosure	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Work lamp, high intensity	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Hydrostatic helical guide	
Quick change cutter adapter	
Automatic hydraulic fixture clamping unit	
Hydraulically operated swing away center support	
Power rear door, robot load ready	
Continuous loop conveyor, pick and place automation	
Workholding fixturing	
Gear shaper cutters	
Training programs	
CE certification for EU destinations	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	





MS650-125

B&K Fellows CNC Gear Shaper

STANDARD MACHINE SPECIFICATIONS

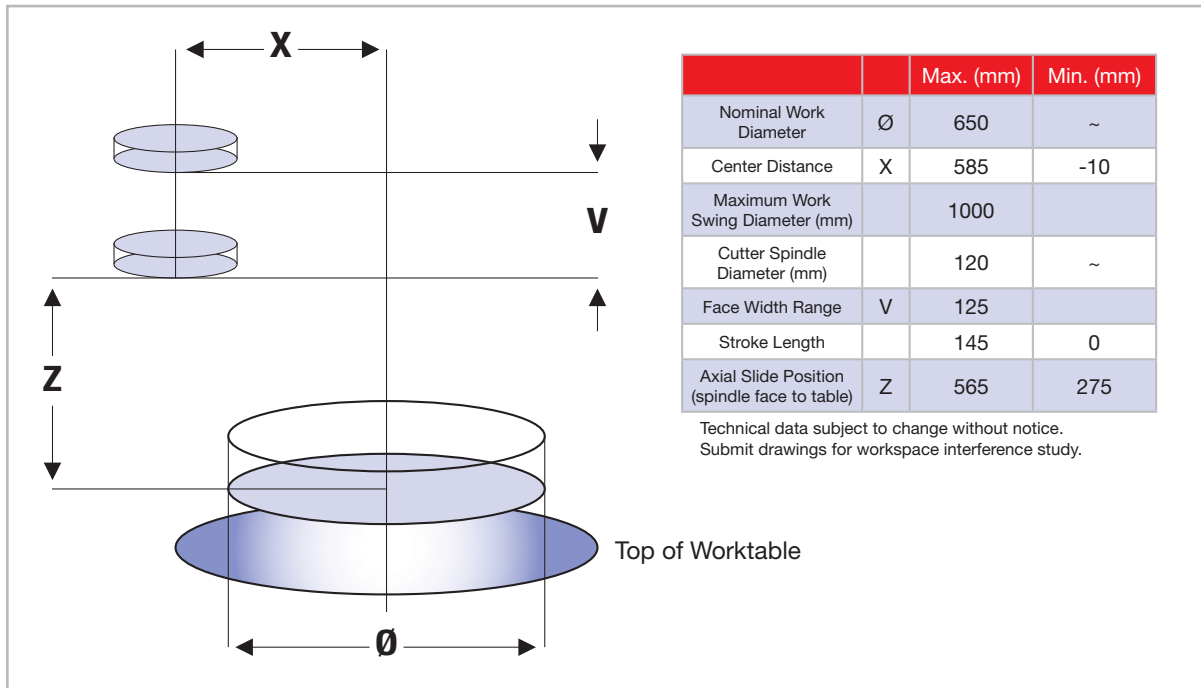
The Bourn & Koch Fellows MS650-125 is a six (6) axes CNC mechanical stroking gear shaper with GE Fanuc 30i control, electronic indexing, elevating cutter spindle housing for shaping internal and external gears.

Technical Data - Capacities & Limits

Nominal PD (external)	650 mm
Nominal PD (internal)	650 mm
Maximum Module	8.47 mod
Maximum Face Width	125 mm
Maximum Helix Angle	45°
Worktable Diameter	690 mm
Cutter Spindle Stroking Range	20-500 spm
Cutter Spindle Diameter	120 mm
Maximum Part Swing Diameter	1000 mm
Cutter Spindle Slide travel	300 mm
Height (Approximate)	3125 mm
Length (Approximate)	5334 mm
Width (Approximate)	1989 mm
Weight (Approximate Net)	17195 kg



Technical data is subject to change without notice.



Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.

Ø = Nominal Workpiece Diameter
X = Center Distance
V = Face Width Range
Z = Axial Cutter Slide Position Above Table Top

MS65O-125

B&K Fellows CNC Gear Shaper

Standard Equipment	
Description	
Base machine with GE Fanuc 30iB CNC control	
Hydrostatic spur guide	
GFI duplex outlet (120 V AC)	
Machine mounted console, 15" color LCD touch screen	
Inch/metric inputs/outputs	
Storage for approx. 100 part programs	
Manual pulse generator, inch/metric switchable	
Diagnostics and error prevention	
Operator's menu with cutter configuration menu, part setup menu, on-line diagnostics, tool offsets, cycle counter, cycle timer	
Operating timer, real-time clock, total power-on elapse	
6 axes control using AC Servo Direct Drives:	
Stroke drive	
Rotary feed drive	
Infeed drive	
Electronic index drive	
Cutter relief drive	
Cutter elevate drive	
Stroke length	
Automatic compensation of temperature dependent center distance changes	
Servo stroke position of cutter spindle	
Programmable, multi-surface cutting capability	
Programmable infeed and rotary feed	
Oriented stiffness backoff, Servo driven	
Heat exchanger for intergral motors	
Automatic lubrication system	
Coolant system 210 liter, chip basket, nested chip conveyor	
Full machine enclosure	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Work lamp, high intensity	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Mist collector	
Automatic magnetic chip conveyor	
Electronic door open and close	
Remote handheld station	
Quick change cutter mechanism	
Automatic (hydraulic) thru hole clamping unit	
CNC controlled electronic guide	
CNC controlled cutter offset	
CNC controlled crowning and taper	
Liquid chiller unit for direct drives	
Automatic tool change mechanism	
Machine mounted near net sensor	
Hydraulically operated, retractable tailstock	
Spare parts kit	
Workholding fixturing	
Gear shaper cutters	
Training programs	
CE certification for EU destinations	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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MS450-125

B&K Fellows CNC Gearless Gear Shaper

GEAR SHAPING

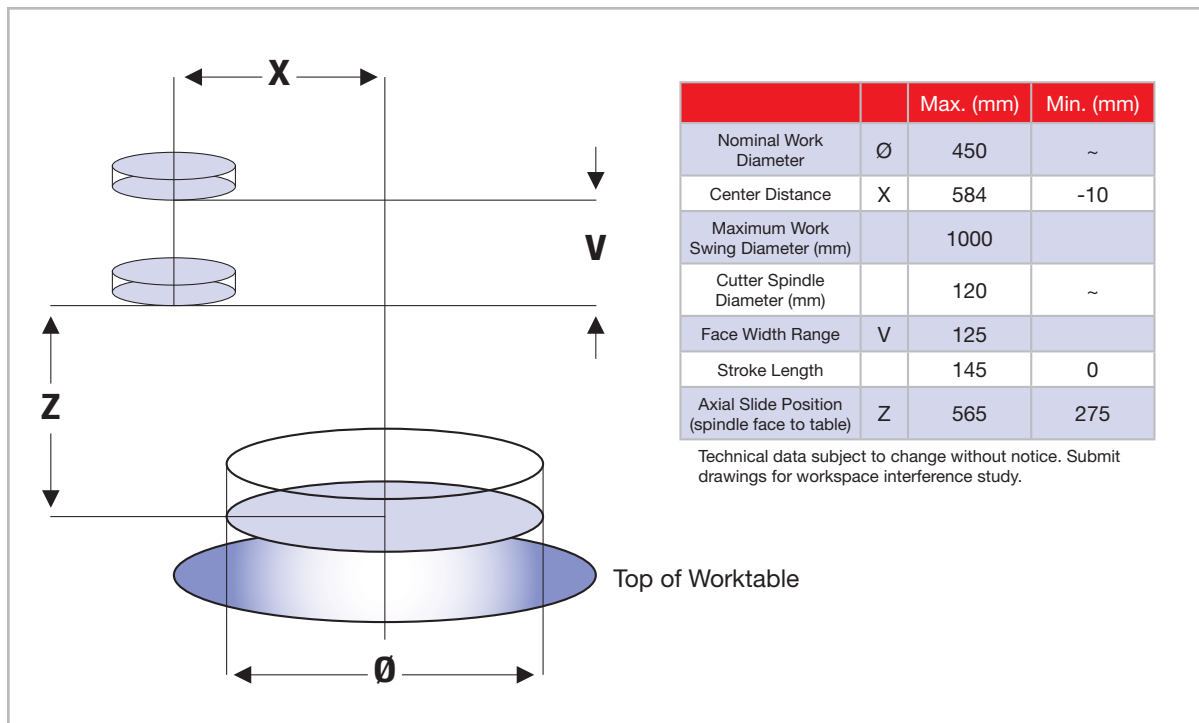
STANDARD MACHINE SPECIFICATIONS

The MS450-125 is a six (6) axis CNC mechanical stroking gear shaper with direct drive spindles, electronic indexing, optional electronic helix setting, elevating cutter spindle housing, for shaping internal and external gears.

Technical Data - Capacities & Limits

Nominal PD (external)	450 mm
Nominal PD (internal)	450 mm
Maximum Face Width	127 mm
Maximum DP, Spur	8.47 mod
Maximum DP, Helical	8.47 mod
Maximum Load on Worktable	900 kg
Cutter spindle stroking range	20-500 spm
Cutter spindle diameter	120 mm
Width (approx.)	1989 mm
Height (No rise block)	3124 mm
Weight (approx. net)	9000 kg

Technical data is subject to change without notice.



MS45O-125

B&K Fellows CNC Gearless Gear Shaper

Standard Equipment	
Description	
Base machine with Fanuc 30iB CNC system	
Hydrostatic spur guide	
Pendant mounted console with 15" color LCD touch screen	
GFI duplex outlet (120 V AC)	
Manual pulse generator, inch/metric switchable	
Programmable tool and work offsets	
Storage for approx. 100 part programs	
Diagnostics and error prevention	
Function controls and keypads for online direct entry of gear shaping data	
Operator's menu with cutter configuration menu, part setup menu, on-line diagnostics, cycle counter, cycle timer	
Operating timer, real time clock, total power-on elapse	
6 axis control use AC servo direct drives:	
Electronic index drive for synchronization of cutter and work rotation	
Stroking speed	
Stroking position	
Work spindle rotation	
Cutter spindle rotation	
Infeed speed and position	
Stroke Length	
Adaptive process control for optimizing chip load	
Automatic compensation of temperature dependent center distance changes	
Servo stroke position of cutter spindle	
Selectable number of cuts	
Programmable, multi-surface cutting capability	
Programmable infeed and rotary feed	
Oriented Stiffness Backoff, servo driven	
Heat exchanger for integral motors	
Automatic Lubrication system	
Coolant system, chip basket, optional chip conveyor	
Full machine enclosure	
Paint, Sherwin Williams Swiss Dotted Off-White	
Documentation	
Work lamp, high intensity	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Mist collector	
Automatic magnetic chip conveyor	
Electronic door open and close	
Remote handheld station	
Quick change cutter mechanism	
Cutter adapters	
Automatic (hydraulic) thru hole clamping unit	
CNC controlled electronic guide	
CNC controlled cutter offset	
CNC controlled crowning and tapering	
Liquid chiller unit for coolant system	
Air cooled heat exchanger	
Automatic tool change mechanism	
Machine mounted near net sensor	
Hydraulically operated, retractable tailstock	
Spare parts kit	
Workholding fixtures	
Gear shaper cutters	
Training programs	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	



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MSD 1600-200

B&K Fellows CNC Double Helical/Herringbone Gear Shaper

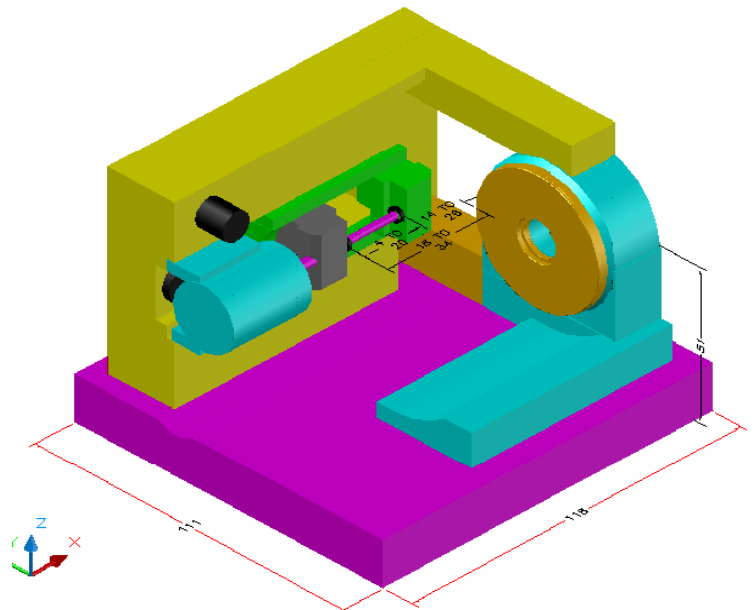
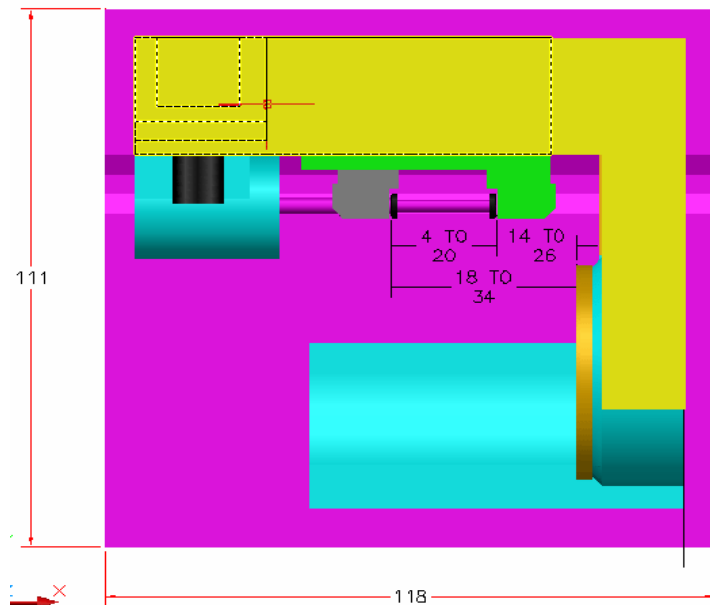
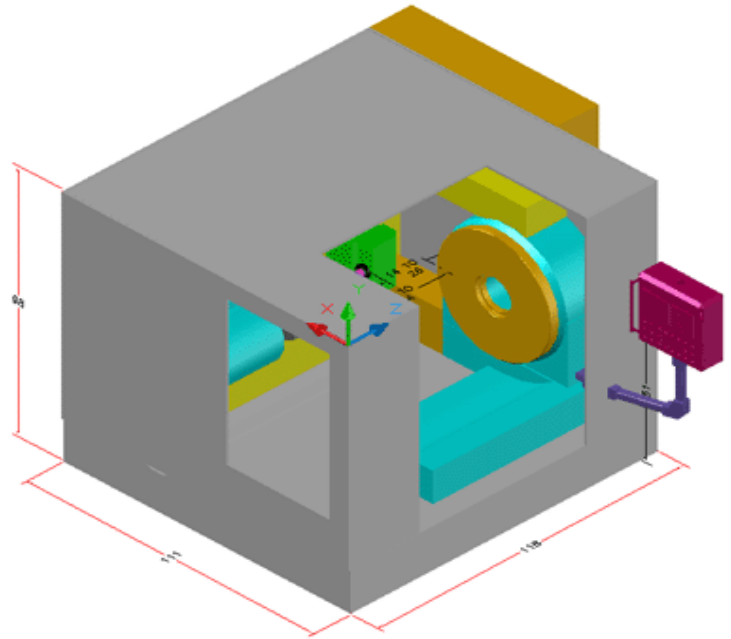
Standard Machine Specifications

The Bourn & Koch Fellows Division CNC Double Helical/Herringbone Gear Shaper is a seven (7) axes CNC mechanical stroking gear shaper with GE Fanuc 31i control for shaping double helical and herringbone gears in a single setup.

Technical Data - Capacities & Limits

Nominal PD (external)	1600 mm
Nominal PD (internal)	1270 mm
Maximum Module	12
Maximum Face Width	200 mm
Maximum Helix Angle	40°
Cutter Spindle Stroking Range SPM	12-150
Cutter Spindle Diameter	120 mm
Worktable Diameter	1120 mm
Max. distance between cutter spindles	500 mm
Workspindle Thru Bore Diameter	254 mm
Height (Approximate)	2250 mm
Length (Approximate)	3800 mm
Width (Approximate)	3300 mm
Weight (Approximate Net)	31,751 Kg

Technical details subject to change without notice.



STANDARD EQUIPMENT

- >Base machine with Fanuc 31i CNC System
- >Hydrostatic 30° guide
- >Pendant mounted console with 15" color TFT touch screen
- >Pentium 4, XP pro, 15" color, Full Qwerty Keyboard w/Mouse
- >GFI Duplex outlet (120 V AC)
- >MPG, switchable inch/metric, programmable tool and work offsets
- >40Gb part program storage
- >Diagnostics and error prevention, descriptive error messages
- >Function controls & keypads for direct entry of gear shaping data
- >Modular hardware and software for easy expansion
- >Operator's part and tool setup menu
- >Operating timer, real time clock, total power-on elapse time
- >Seven Axes Control using AC Servo Direct Drives:
 - Electronic index drive for synchronization of cutter and work rotation
 - Stroking speed, stroke position, work spindle rotation,
 - Cutter spindle rotation, infeed speed and position, stroke length
- >Adaptive process control for optimizing chip load
- >Automatic temperature compensation of CD changes
- >Stroke positioning of cutter spindle
- >Selectable number of cuts
- >Programmable, multi-surface cutting capability
- >Programmable infeed and rotary feed
- >Servo driven backoff, Oriented Stiffness Back-Off™
- >Water cooled heat exchanger for integral liquid cooled motors
- >Lubrication system
- >Coolant system 210 liter (55.5 gal) tank, chip basket
- >Full machine enclosure
- >Documentation
- >Paint, Sherwin Williams BM 1302 Dotted Swiss Off-White
- >Cutter spindle adapter with 44.45 mm (1-3/4") nose
- >Work lamp, high intensity

OPTIONAL EQUIPMENT

- ☐ Hydrostatic helical guide 30°
- ☐ 42" discharge height chip conveyor
- ☐ Remote handheld pendant
- ☐ Work supports
- ☐ CNC controlled crowning and tapering
- ☐ Hydro-mechanical head clamp/unclamp
- ☐ Full machine enclosure with 80" door
- ☐ Integral motor cutter heads
- ☐ Automatic door open and close
- ☐ Mist collector mounted on machine enclosure
- ☐ CE specification conformance & certification
- ☐ Workholding fixturing
- ☐ Herringbone gear shaper cutters

Optional Equipment Total (\$)

Total Cost:

Standard Equipment Total (\$)

Optional Equipment Total (\$)

Total (\$):

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CNC Reman 36-6

B&K Fellows CNC Gear Shaper

Standard Machine Specifications

The Bourn & Koch CNC Remanufactured Fellows 36-6 is a three (3) axes CNC mechanical stroking gear shaper with GE Powermate control for giving new life to an old mechanical shaper design for shaping internal and external gears.

Technical Data - Capacities & Limits

Nominal PD (external)	1015 mm
Nominal PD (internal)	915 mm
Maximum Module	8.5 Mod
Maximum Face Width	152 mm
Maximum Helix Angle	45°
Cutter Spindle Stroking Range	30-200 SPM
Cutter Spindle Diameter	150 mm
Maximum Part Swing Diameter	1041 mm
-without throated riser	

Height (Approximate)	2240 mm
Length (Approximate)	2090 mm
Width (Approximate)	1410 mm
Weight (Approximate Net)	13,500 Kg

Technical details subject to change without notice.



STANDARD EQUIPMENT

- ◇ Remanufactured machine with GE Powermate CNC control
 - ◇ Programming of strokes per minute
 - ◇ Programming of cutter infeed rate
 - ◇ Programming of cutter rotary feed per stroke
 - ◇ Programming of number of cuts
 - ◇ Programming of finish cut depth
 - ◇ Cutter auto top positioning
 - ◇ Synchronization of cutter and work spindle
 - ◇ Quick truing of cutter and work spindles during setup
 - ◇ Programming in conversational language
 - ◇ Automatic lubrication
 - ◇ RS 232 port
 - ◇ New machine warranty
 - ◇ Lubrication system
 - ◇ Chip basket
 - ◇ Paint: Sherwin Williams Swiss Dotted Off-White
 - ◇ Documentation
 - ◇ Remanufactured in USA
- Standard Equipment Total (\$)

OPTIONAL EQUIPMENT

- ☐ Customer supplies base machine
- ☐ Bourn & Koch supplies base machine
- ☐ New standard mechanical guide
- ☐ Remanufactured table wormgear
- ☐ Work Light
- ☐ Color CRT in lieu of monochrome
- ☐ Slotted table, 36" in diameter, with (6) T-slots to bore
- ☐ Cutter spindle head relieving in lieu of worktable relieving
- ☐ Quick returning stroking mechanism
- ☐ Throated riser block for increase swing diameter (specify)
- ☐ Table home switch
- ☐ Workholding fixturing
- ☐ Gear shaper cutters

Optional Equipment Total (\$)

Total Cost:

Standard Equipment Total (\$)

Optional Equipment Total (\$)

Total (\$):

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100H SERIES II

B&K CNC Horizontal Hobbing Machine

HORIZONTAL HOBBING

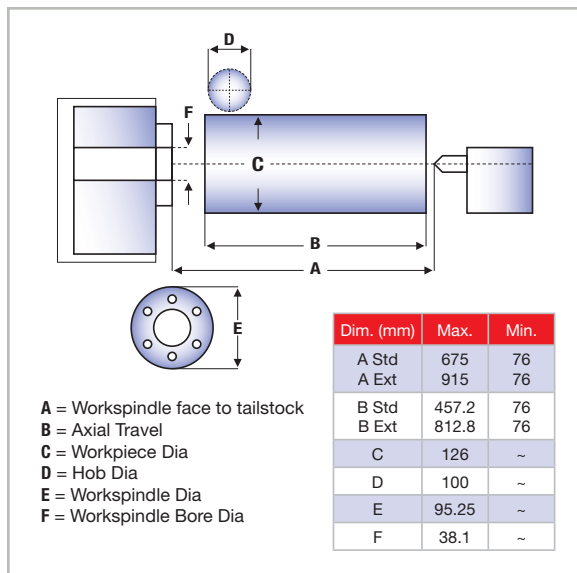
STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch 100H is a (six) 6 axis CNC Horizontal Hobbing Machine/Milling Machine for hobbing spur and helical gears, splines, and threads on cylindrical blanks or shafts. It is practical to hob and/or mill more than one component sequentially if multiple components exist on a shaft.

Technical Data - Capacities & Limits

Nominal Workpiece Diameter	126 mm
Maximum Module	2.5 mod
Maximum Axial Cutting Length	457.2 mm
Maximum Hob Diameter	100 mm
Maximum Hob Length	152 mm
Maximum Hob Swivel	+/- 45°
Maximum Hob Shift	152 mm
Hob Speed Range (RPM)	100-2000
Workspindle Maximum Speed (RPM)	750
Hob Drive Power	7.5 kw
Width (Approximate)	1626 mm
Height (Approximate)	1829 mm
Length (Approximate)	1982 mm
Weight (Approximate Net)	3230 kg

Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.



100H SERIES II

B&K CNC Horizontal Hobbing Machine

Standard Equipment	
Description	
Base machine with NUM 1060H CNC control	
Wired for 460 volts, 3 phase, 60 Hz	
Total enclosure	
Anti friction hardened and ground ways	
Steel way covers for Z axis and tail center	
Pneumatic live center, position adjustable	
CNC programmable hob swivel setting	
Manual grease lubrications to all bearing surfaces	
Electrical panel to AMT and ANSI-NFPA 79 Codes	
Wet or dry cutting, with coolant tank/pump assembly	
B axis - hob servo motor	
C axis - work spindle servo motor	
X axis - radial feed servo motor	
Y axis - tangential/hob shift servo motor	
Z axis - axial feed servo motor	
A axis - hob swivel	
Automatic single and double cut cycles	
Speed and feed change between cuts	
Crown hobbing cycle	
Taper hobbing cycle	
Radial and tangential feed wormgear cycles	
Operator friendly data entry HMI screens	
Machine painted one standard color	
Selectable number of cuts	
Work light	
Programmable, multi-surface cutting capability	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
GE Fanuc 16i CNC control	
Color Screen	
Electronic door open and close	
Extended bed (14" extension to allow 32" shaft length)	
Optional 200-3000 RPM hob speed range	
Emergency withdrawal of X axis due to power loss	
Foot valve for tail center	
Automatic stock division hardware & software	
Set of leveling wedges	
Additional work area light	
Magnetic chip separator	
Drag type chip separator for wet/dry non-magnetic materials	
Mist collector assembly	
Pneumatic work clamping cylinder	
Collet chuck assembly	
Special workholding system fixture systems	
Automation designs	
90° special milling cutter slide	
Rotary deburring attachment	
Hob arbors in inch or metric design	
Special cycle executions	
Special chamfering hobbing design (100C)	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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200H SERIES II

B&K CNC Horizontal Hobbing Machine

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch 200H is a seven (7) axis CNC Horizontal Hobbing Machine/Milling Machine for hobbing spur and helical gears, splines, and threads on cylindrical blanks or shafts. It is practical to hob and/or mill more than one component sequentially if multiple components exist on a shaft.

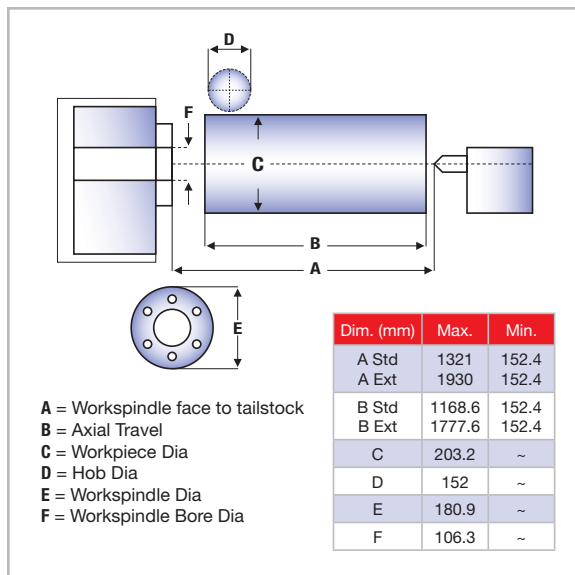
Technical Data - Capacities & Limits

Nominal Workpiece Diameter	203.2 mm
Maximum Module	6.4 mod
Maximum Axial Cutting Length	1321 mm
Maximum Hob Diameter	152 mm
Maximum Hob Length	177 mm
Maximum Hob Swivel	+/- 45°
Maximum Hob Shift	152 mm
Hob Speed Range (RPM)	20-375
Workspindle Maximum Speed (RPM)	80
Hob Drive Power	7.5 kw
Width (Approximate)	3170 mm
Height (Approximate)	2300 mm
Length (Approximate)	2200 mm
Weight (Approximate Net)	8106 kg

Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.



HORIZONTAL HOBBING



200H SERIES II

B&K CNC Horizontal Hobbing Machine

Standard Equipment	
Description	
Base machine with NUM 1060H CNC control	
Wired for 460 volts, 3 phase, 60 Hz	
Steel polymer concrete composite structure	
Total enclosure	
Anti friction hardened and ground ways	
Steel way covers for Z axis and tail center	
CNC operated tail center with variable load control	
CNC programmable hob swivel setting	
Manual grease lubrications to all bearing surfaces	
Electrical panel to AMT and ANSI-NFPA 79 Codes	
Wet or dry cutting, with coolant tank/pump assembly	
B axis - hob servo motor	
C axis - work spindle servo motor	
X axis - radial feed servo motor	
Y axis - tangential/hob shift servo motor	
Z axis - axial feed servo motor	
A axis - hob swivel	
W axis - tailstock position motor	
Automatic single and double cut cycles	
Speed and feed change between cuts	
Crown hobbing cycle	
Taper hobbing cycle	
Radial and tangential feed wormgear cycles	
Operator friendly data entry HMI screens	
Machine painted one standard color	
Selectable number of cuts	
Work light	
Programmable, multi-surface cutting capability	
Standard Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

Optional Equipment	
Description	Price (\$)
GE Fanuc 16i CNC control	
Color Screen	
Electronic door open and close	
Extended bed (20" extension to allow 72" shaft length)	
Optional 50-500 or 100-1000 RPM hob speed range	
Hob shift extended to 8", HD hobhead, 15kW drive, 50-900 rpm	
Quick change hob arbor clamp assembly for hob spindle	
Emergency withdrawal of X axis due to power loss	
Foot valve for tail center	
Automatic stock division hardware & software	
Set of leveling wedges	
Additional work area light	
Magnetic chip separator (RH discharge std) (LH on request)	
Drag type chip separator for wet/dry non-magnetic materials	
Mist collector assembly	
Pneumatic work clamping cylinder	
Collet chuck assembly	
Special workholding system fixture systems	
Adjustable roller type steadyrests	
Charge for non standard work spindle speed	
Rotary deburring attachment, for gear deburring at hob exit of cut	
Hob arbors in inch or metric design	
Special cycle executions	
Increased memory for 200 parts, in lieu of standard 40	
Interchangeable hydraulic hob arbor clamping nut	
Conformance to European Union CE specifications	
Automation designs	
Interface software for third party robotic automation	
Capability runoff for 25 pieces with inspection	
Optional Equipment Total (\$):	

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400H SERIES II

B&K CNC Horizontal Hobbing Machine

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch 400H is a seven (7) axis CNC Horizontal Hobbing Machine/Milling Machine for hobbing spur and helical gears, splines, and threads on cylindrical blanks or shafts. It is practical to hob and/or mill more than one component sequentially if multiple components exist on a shaft.

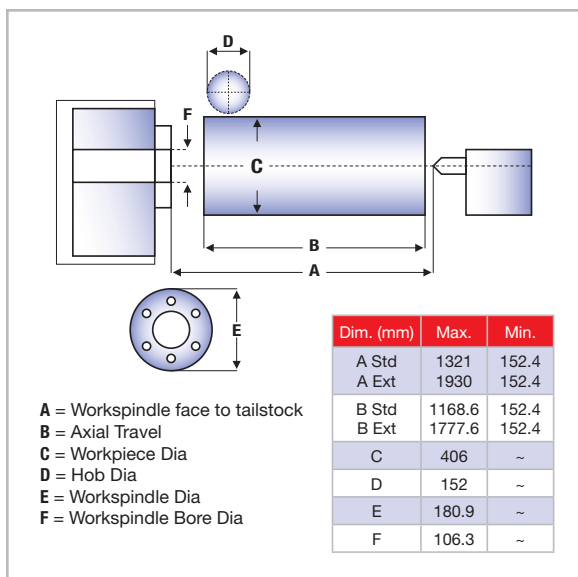
Technical Data - Capacities & Limits

Nominal Workpiece Diameter	406.4 mm
Maximum Module	6.4 mod
Maximum Axial Cutting Length	1321 mm
Maximum Hob Diameter	152 mm
Maximum Hob Length	177 mm
Maximum Hob Swivel	+/- 45°
Maximum Hob Shift	152 mm
Hob Speed Range (RPM)	20-375
Workspindle Maximum Speed (RPM)	64
Hob Drive Power	7.5 kw
Width (Approximate)	3170 mm
Height (Approximate)	2300 mm
Length (Approximate)	2200 mm
Weight (Approximate Net)	8106 kg

Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.



HORIZONTAL HOBBING



400H SERIES II

B&K CNC Horizontal Hobbing Machine

Standard Equipment	
Description	
Base machine with NUM 1060H CNC control	
Wired for 460 volts, 3 phase, 60 Hz	
Steel polymer concrete composite structure	
Total enclosure	
Anti friction hardened and ground ways	
Steel way covers for Z axis and tail center	
CNC operated tail center with variable load control	
CNC programmable hob swivel setting	
Manual grease lubrications to all bearing surfaces	
Electrical panel to AMT and ANSI-NFPA 79 Codes	
Wet or dry cutting, with coolant tank/pump assembly	
B axis - hob servo motor	
C axis - work spindle servo motor	
X axis - radial feed servo motor	
Y axis - tangential/hob shift servo motor	
Z axis - axial feed servo motor	
A axis - hob swivel	
W axis - tailstock position motor	
Automatic single and double cut cycles	
Speed and feed change between cuts	
Crown hobbing cycle	
Taper hobbing cycle	
Radial and tangential feed wormgear cycles	
Operator friendly data entry HMI screens	
Machine painted one standard color	
Selectable number of cuts	
Work light	
Programmable, multi-surface cutting capability	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
GE Fanuc 16i CNC control	
Color Screen, 14", for NUM 1060 Control	
Electronic door open and close	
Extended bed (24" extension to allow 76" shaft length)	
Optional 50-500 or 100-1000 RPM hob speed range	
Hob shift extended to 8", HD hobhead, 15kW drive, 50-900 rpm	
Quick change hob arbor clamp assembly for hob spindle	
Emergency withdrawal of X axis due to power loss	
Foot valve for tail center	
Automatic stock division hardware & software	
Set of leveling wedges	
Additional work area light	
Magnetic chip separator (RH discharge std) (LH on request)	
Drag type chip separator for wet/dry non-magnetic materials	
Mist collector assembly	
Pneumatic work clamping cylinder	
Collet chuck assembly	
Special workholding system fixture systems	
Adjustable roller type steadyrests	
Charge for non standard work spindle speed	
Rotary deburring attachment, for gear deburring at hob exit of cut	
Hob arbors in inch or metric design	
Special cycle executions	
Increased memory for 200 parts, in lieu of standard 40	
Interchangeable hydraulic hob arbor clamping nut	
Conformance to European Union CE specifications	
Automation designs	
Interface software for third party robotic automation	
Capability runoff for 25 pieces with inspection	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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600H SERIES II

B&K CNC Horizontal Hobbing Machine

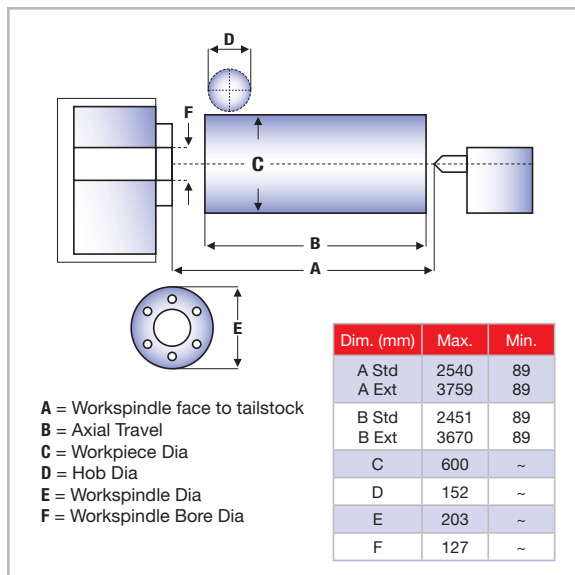
STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch 600H is a six (6) axis CNC Horizontal Hobbing/Milling Machine for hobbing spur and helical gears, splines, and threads on cylindrical blanks or shafts. It is practical to hob and/or mill more than one component sequentially if multiple components exist on a shaft.

Technical Data - Capacities & Limits

Nominal Workpiece Diameter	600 mm
Maximum Module	6.4 mod
Maximum Axial Cutting Length	2540 mm
Maximum Hob Diameter	152 mm
Maximum Hob Length	177 mm
Maximum Hob Swivel	+/- 45°
Maximum Hob Shift	152 mm
Hob Speed Range (RPM)	30-300
Workspindle Maximum Speed (RPM)	18
Hob Drive Power	7.5 kw
Width (Approximate)	3276 mm
Height (Approximate)	2489 mm
Length (Approximate)	6706 mm
Weight (Approximate Net)	17272 kg

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.



600H SERIES II

B&K CNC Horizontal Hobbing Machine

Standard Equipment	
Description	
Base machine with GE Fanuc 16i CNC control	
Wired for 460 volts, 3 phase, 60 Hz	
Anti friction hardened and ground ways	
Steel way covers for Z axis and tail center	
CNC programmable hob swivel setting	
Manual grease lubrications to all bearing surfaces	
Electrical panel to AMT and ANSI-NFPA 79 Codes	
Wet or dry cutting, with coolant tank/pump assembly	
B axis - hob servo motor	
C axis - work spindle servo motor	
X axis - radial feed servo motor	
Y axis - tangential/hob shift servo motor	
Z axis - axial feed servo motor	
A axis - hob swivel	
Automatic single and double cut cycles	
Speed and feed change between cuts	
Crown hobbing cycle	
Taper hobbing cycle	
Radial and tangential feed wormgear cycles	
Operator friendly data entry HMI screens	
Machine painted one standard color	
Selectable number of cuts	
Work light	
Programmable, multi-surface cutting capability	
Standard Equipment Total (\$)	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Handheld pendant	
Heavy duty hydraulic operated tailstock with 4.5" bull nose center	
Optional 2.5 DP hob head with 8" hob shift	
Extended (HE) bed to 3760 mm (148") axial cutting length	
Extended (HE) bed to 4572 mm (180") axial cutting length	
Extended (HE) bed to 5080 mm (200") axial cutting length	
Extended (HE) bed to 7212 mm (280") axial cutting length	
Adjustable loading cradle	
Coolant sensor guard	
Rotary deburring attachment, for gear deburring at hob exit of cut	
Hydraulic work clamp cylinder assembly	
Collet chuck assembly	
Set of leveling wedges	
Chiller unit for coolant system	
Traveling control panel, splash guard	
Magnetic chip separator	
Full enclosure for "no leaks" machine (in lieu of standard)	
Mist collector assembly	
Quick change hob arbor clamping assembly	
Hob arbors in inch or metric design	
Special cycle executions	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

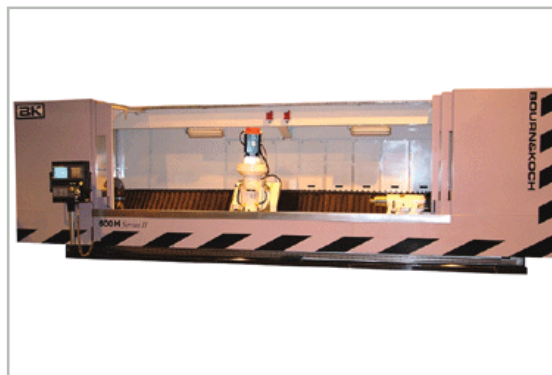
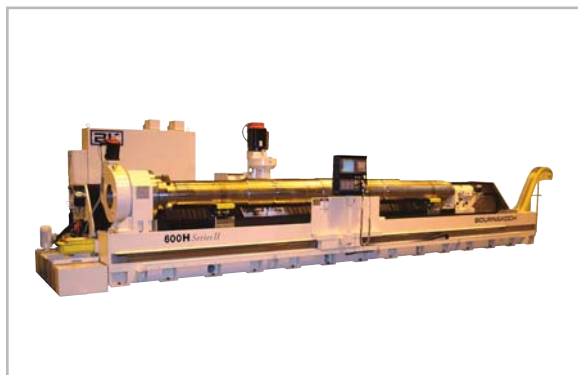
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600 HXL

Horizontal Hobbing Machine

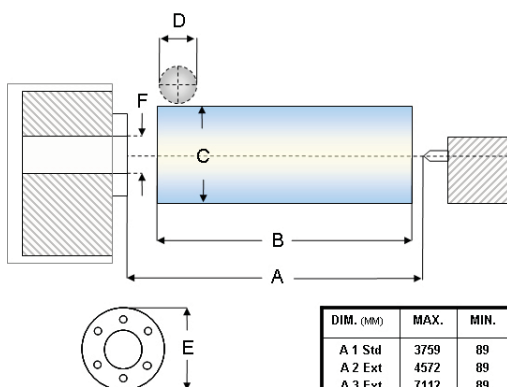
HORIZONTAL HOBBING



STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch 600HXL is a 6 axis CNC Horizontal Hobbing/Milling Machine for hobbing spur and helical gears, splines and threads on cylindrical blanks or shafts. It is practical to hob and/or mill more than one component sequentially if multiple components exist on a shaft.

Working Range Capacity



DIM. (MM)	MAX.	MIN.
A 1 Std	3759	89
A 2 Ext	4572	89
A 3 Ext	7112	89
B 1 Std	3315	89
B 2 Ext	4218	89
B 3 Ext	6668	89
C	600	~
D	200	~
E	690	~
F	300	~

Technical Data - Capacities & Limits

Nominal Workpiece Diameter	600 mm
Maximum Module	12 Mod
Maximum Axial Cutting Length	3759 mm
Maximum Hob Diameter	200 mm
Maximum Hob Length	250 mm
Maximum Hob Swivel	+/- 45°
Maximum Hob Shift	2155 mm
Hob Speed Range (RPM)	30-250
Workspindle Maximum Speed (RPM)	15
Hob Drive Power	15 kw
Width (Approximate)	3276 mm
Height (Approximate)	2489 mm
Length (Approximate)	7556 mm
Weight (Approximate Net)	17,272 kg

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.

A = Workspindle face to tailstock
 B = Axial Travel
 C = Workpiece Dia
 D = Hob Dia
 E = Workspindle Dia
 F = Workspindle Bore Dia.

600 HXL

Horizontal Hobbing Machine

Standard Equipment	
Description	
Base machine with GE Fanuc 16i CNC control, 10.4" LCD Color Display	
Wired for 460 volts, 3 phase, 60 Hz	
Anti friction hardened and ground ways	
Way covers for Z axis and tail center	
CNC programmable hob swivel setting	
Automatic grease lubrications to all bearing surfaces	
Electrical panel to AMT and ANSI-NFPA 79 Codes	
Wet or dry cutting, with coolant tank/pump assembly	
B axis - hob servo motor	
C axis - work spindle integral liquid cooled torque motor	
X axis - radial feed servo motor	
Y axis - tangential/hob shift servo motor	
Z axis - axial feed servo motor	
A axis - hob swivel	
Automatic single and double cut cycles	
Speed and feed change between cuts	
Crown hobbing cycle	
Taper hobbing cycle	
Radial and tangential feed wormgear cycles	
Operator friendly data entry HMI screens	
Machine painted one standard color	
Selectable number of cuts	
Work light	
Programmable, multi-surface cutting capability	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
HMI, PC Front End, Touchscreen	
Optional 1.5 DP head, 11"x14"	
Quick change hob arbor clamping	
Heavy duty hydraulic operated tailstock	
Adjustable loading cradle	
Hydraulic work clamping cylinder	
Emergency hob retract	
Hydraulic workpiece clamping device	
Extended (HE) bed to 4572 mm (180")	
Extended (HE) bed to 5080 mm (200")	
Extended (HE) bed to 7212 mm (280")	
Double magnetic chip conveyor	
Chiller unit for liquid cooling of integral C-axis motor	
Rotary deburring attachment	
Handwheel pendant for setup assistance	
Collet chuck assembly	
Set of levelling wedges	
Chiller unit for coolant system	
Traveling control panel, splash guard	
Special one sided crowning software	
Full enclosure	
Mist collector assembly	
Hob arbors in inch or metric design	
Special cycle executions	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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8AD-12

B&K Blanchard Rotary Surface Grinder

ROTARY SURFACE GRINDER

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Blanchard 8AD-12 Rotary Surface Grinder is a 14" swing diameter vertical spindle, rotary surface grinder with a GE Fanuc Powermate control for the abrasive machining of parallelism, flatness and surface finish to single or multiple piece production runs.

Technical Data - Capacities & Limits	
Grinding wheel diameter	8"
Magnetic chuck diameter	12"
Swing diameter inside watterguards	14"
Vertical range	5.5"
Maximum load on chuck	100 lbs
Grinding wheel horsepower (HP)	3
Type of feed system	Servo
Down feed rates IPM	.0001 - .050
Chuck rotation speeds RPM	20 - 120
Coolant capacity	50 gal
Height* (Approximate)	38"
Length (Approximate)	48"
Width (Approximate)	23"
Weight (Approximate Net)	1300 lbs

*Not including fabricated workbench.

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

8AD-12

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Base machine with GE Fanuc Powermate Control	
12" diameter permanent magnet chuck	
Grinding wheel	
Down feed system	
Water guards	
Coolant system, dry base, outside coolant supply required	
Lubrication for table and chuck bearing	
Manual pulse generator, inch/metric switchable	
Three point column support	
NEMA 12 control enclosure, machine mounted	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Blanchard Type II plated mounted cylinder wheels	
Power table traverse in lieu of standard hard traverse unit	
Automatic hydraulic fixture clamping unit	
Variable main spindle speed - 900-3600 rpm	
Diamond wheel adapter plate	
Table mounted wheel dresser	
Transformer for 3 phase, 60 Hz, 460/575/208/380 volts	
Transformer for 3 phase, 50 Hz, 220/380/415/500 volts	
18" swing water guards and sliding water guard door	
12" dia. Electromagnetic chuck and control	
Precision ballscrew for head in place of std. feed screw	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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11AD-20

B&K Blanchard Rotary Surface Grinder

ROTARY SURFACE GRINDER

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Blanchard 11AD-20 Rotary Surface Grinder is a 21" swing diameter vertical spindle, rotary surface grinder with a GE Fanuc Powermate control for the abrasive machining of parallelism, flatness and surface finish to single or multiple piece production runs.

Technical Data - Capacities & Limits

Grinding wheel diameter	11"
Magnetic chuck diameter	20"
Swing diameter inside watterguards	21"
Vertical range	12"
Maximum load on chuck	500 lbs
Grinding wheel horsepower (HP)	15
Type of feed system	Servo
Down feed rates IPM	.0001 - .100
Chuck rotation speeds RPM	15 - 75
Coolant capacity	75 gal
Height* (Approximate)	81"
Length (Approximate)	91"
Width (Approximate)	55"
Weight (Approximate Net)	8000 lbs

*Maximum height 91"

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

11AD-20

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Base machine with GE Fanuc Powermate Control	
20" diameter permanent magnet chuck	
Grinding wheel	
Down feed system	
Rack & pinion table traverse thru wormgear reduction drive	
Water guards	
Coolant system, dry base, outside coolant supply required	
Lubrication for table and chuck bearing	
11" cylindrical wheel holder, with (1) abrasive wheel	
Three point column support	
NEMA 12 control enclosure, machine mounted	
3 phase, 60 Hz, 460 volts	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Blanchard Type II plated mounted cylinder wheels	
Extended vertical range 18"	
Continuous reading caliper attachment	
±3° Tilt column mechanism for concave/convex grinding	
±15° Tilt column mechanism for concave/convex grinding	
Diamond wheel adapter plate	
Coolant pump and mounting bracket	
Blanchard Model 75 settling tank	
Polytech Model PGF2 gravity bed filter	
Flow Pro Model PBL5 paper bed filter system	
Paper bed filtration system for water based solution	
20" rotary vacuum chuck	
Transformer for 3 phase, 50 Hz, 220/380/415/500 volts	
Training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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20AD-36

B&K Blanchard Rotary Surface Grinder

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Blanchard 20AD-36 Rotary Surface Grinder is a 48" swing diameter vertical spindle, rotary surface grinder with a GE Fanuc Powermate control for the abrasive machining of parallelism, flatness and surface finish to single or multiple piece production runs.

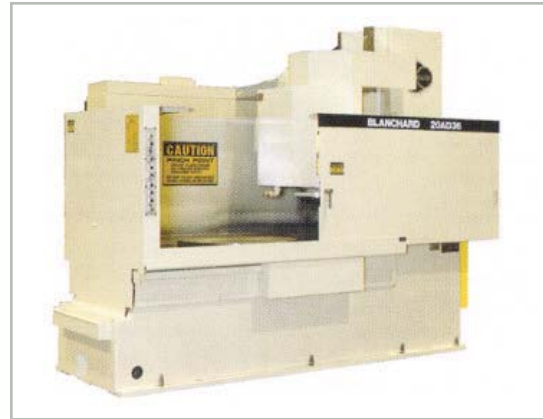
Technical Data - Capacities & Limits

Grinding wheel diameter	20"
Magnetic chuck diameter	36"
Swing diameter inside watterguards	48"
Vertical range	24"
Maximum load on chuck	3000 lbs
Grinding wheel horsepower (HP)	50
Type of feed system	Servo
Down feed rates IPM	.0001 - .100
Chuck rotation speeds RPM	6 - 24
Coolant capacity	250 gal
Height* (Approximate)	105"
Length (Approximate)	140"
Width (Approximate)	69"
Weight (Approximate Net)	18000 lbs

*Maximum height 109"

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

20AD-36

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Base machine with GE Fanuc Powermate Control	
36" diameter permanent magnet chuck	
Grinding wheel	
Down feed system	
Rack & pinion table traverse thru wormgear reduction drive	
Water guards	
Coolant system, dry base, outside coolant supply required	
Lubrication for table and chuck bearing	
20" cylindrical wheel holder, Type II or CDT wheels	
Three point column support	
NEMA 12 control enclosure, floor mounted	
3 phase, 60 Hz, 460 volts	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Blanchard Type II plated mounted cylinder wheels	
CDTL segment mounted wheels	
Extended vertical range 48"	
Continuous reading caliper attachment	
Variable speed drive for CBN or Diamond wheel	
±3° Tilt column mechanism for concave/convex grinding	
18" Diamond wheel adapter plate	
Coolant pump with mounting bracket	
Polyclon/Polytech PW85-400D Whirlstream Filtration System	
Polyclon/Polytech PV-H5-80 Vacuum Filtration System	
Transformer for 3 phase, 50 Hz, 220/380/415/500 volts	
Training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	





22AD-42

B&K Blanchard Rotary Surface Grinder

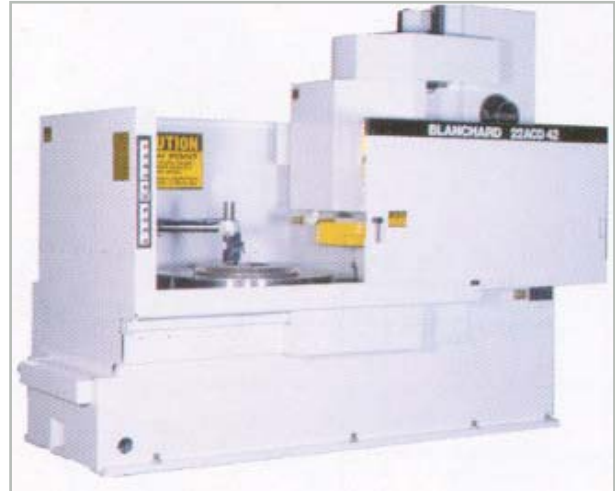
STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Blanchard 22AD-42 Rotary Surface Grinder is a 48" swing diameter, vertical spindle, rotary surface grinder with a GE Fanuc Powermate control for the abrasive machining of parallelism, flatness and surface finish to single or multiple piece production runs.

Technical Data - Capacities & Limits	
Grinding wheel diameter	22"
Magnetic chuck diameter	42"
Swing diameter inside watertguards	48"
Vertical range	24"
Maximum load on chuck	3000 lbs
Grinding wheel horsepower (HP)	50
Type of feed system	Servo
Down feed rates IPM	.0001 - .100
Chuck rotation speeds RPM	6 to 24
Coolant capacity	250 gal
Height (Approximate)	109"
Length (Approximate)	140"
Width (Approximate)	69"
Weight (Approximate Net)	18300 lbs

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle.
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

22AD-42

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Base machine with GE Fanuc Powermate Control	
42" diameter permanent magnet chuck	
Grinding wheel	
Down feed system	
Rack & pinion table traverse thru wormgear reduction drive	
Water guards	
Coolant system, dry base, outside coolant supply required	
Lubrication for table and chuck bearing	
Segment wheel holder, with (1) set abrasive segments	
Three point column support	
NEMA 12 control enclosure, machine mounted	
3 phase, 60 Hz, 460 volts	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Extended vertical range 36"	
Continuous reading caliper attachment	
In process Marposs gage & cycle system	
Coolant pump and mounting bracket	
Conveyor type settling tank, sludge conveyor	
Hand operated Trabon grease lubrication system, in lieu of auto	
Quick tilt column mechanism for concave/convex grinding	
18" Diamond wheel adapter plate	
Filtration system with built in drag out sludge conveyor	
Vacuum filtration system, synthetic fabric media	
Transformer for 3 phase, 50 Hz, 220/380/415/500 volts	
Training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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26HAD-48

B&K Blanchard Rotary Surface Grinder

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Blanchard 26HAD-48 Rotary Surface Grinder is a 56" swing diameter, vertical spindle, rotary surface grinder with a GE Fanuc Powermate control for the abrasive machining of parallelism, flatness and surface finish to single or multiple piece production runs.

Technical Data - Capacities & Limits

Grinding wheel diameter	26"
Magnetic chuck diameter	48"
Swing diameter inside warterguards	56"
Vertical range	24"
Maximum load on chuck	3000 lbs
Grinding wheel horsepower (HP)	75
Type of feed system	Servo
Down feed rates IPM	.0001 - .100
Chuck rotation speeds RPM	6 to 24
Coolant capacity	500 gal
Height* (Approximate)	105"
Length (Approximate)	143"
Width (Approximate)	65"
Weight (Approximate Net)	18500 lbs

*Maximum height 115"

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle.
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

26HAD-48

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Base machine with GE Fanuc Powermate Control	
48" diameter permanent magnet chuck	
Grinding wheel	
Down feed system	
Rack & pinion table traverse thru wormgear reduction drive	
Water guards	
Coolant system, dry base, outside coolant supply required	
Lubrication for table and chuck bearing	
26" grinding wheel segment holder, one set of abrasive segments	
Three point column support	
NEMA 12 control enclosure, machine mounted	
3 phase, 60 Hz, 460 volts	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Extended vertical range 36"	
100 HP main spindle motor in place of 75 HP	
In process Marposs gage & cycle system	
Coolant pump and mounting bracket	
Conveyor type settling tank, sludge conveyor	
Hand operated Trabon grease lubrication system, in lieu of auto	
Quick tilt column mechanism for concave/convex grinding	
Filtration system with built in drag out sludge conveyor	
Vacuum filtration system, synthetic fabric media	
Variable frequency drive, for use only with CBN wheels	
Transformer for 3 phase, 50 Hz, 220/380/415/500 volts	
Training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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36HD-66

B&K Blanchard Rotary Surface Grinder

ROTARY SURFACE GRINDER

STANDARD MACHINE SPECIFICATIONS

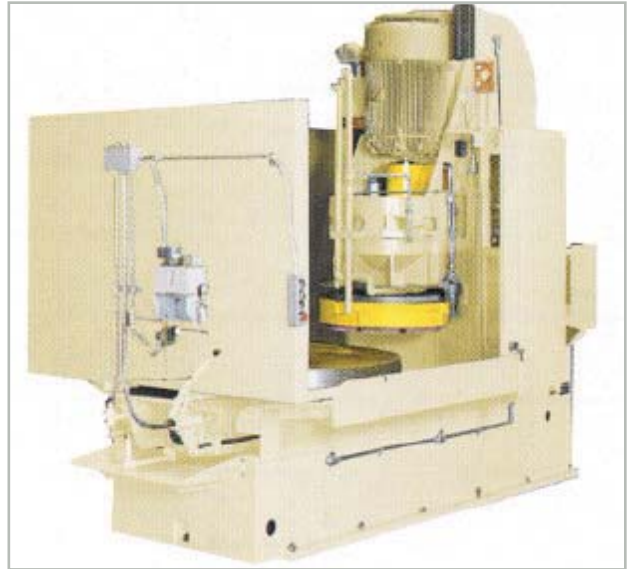
The Bourn & Koch Blanchard 36HD-66 Rotary Surface Grinder is an 84" swing diameter vertical spindle, rotary surface grinder with control for the abrasive machining of parallelism, flatness and surface finish to single- or multiple-piece production runs.

Technical Data - Capacities & Limits	
Grinding wheel diameter	36"
Magnetic chuck diameter	66"
Swing diameter inside warterguards	84"
Vertical range	24"
Maximum load on chuck	10000 lbs
Grinding wheel horsepower (HP)	150
Type of feed system	pick-feed
Down feed rates IPM	.004 - .080
Chuck rotation speeds RPM	5.6 - 20.1
Coolant capacity	1000 gal
Height* (Approximate)	81"
Length (Approximate)	91"
Width (Approximate)	55"
Weight (Approximate Net)	45000 lbs

*Maximum height 91"

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle.
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

36HD-66

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Base machine and controls	
66" diameter permanent magnet chuck	
Geared wheel head	
Down feed system	
Rack & pinion table traverse thru wormgear reduction drive	
Water guards	
Coolant system, dry base, outside coolant supply required	
Lubrication for table and chuck bearing	
36" CDT segment wheel holder, with (1) set abrasive segments	
Three point column support	
NEMA 12 control enclosure, machine mounted	
3 phase, 60 Hz, 460 volts	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
CDTXL Segments - 12 sets, standard stock vitrified bond specs	
Extended vertical range 36"/40"	
In process gage and cycle control system	
200 HP Main spindle motor	
Two coolant pumps with mounting brackets	
Two solenoid controlled coolant valves	
Self dumping swarf hopper	
Pit-mounted conveyor drag-out setting tank	
Training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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42HD-84

B&K Blanchard Rotary Surface Grinder

ROTARY SURFACE GRINDER

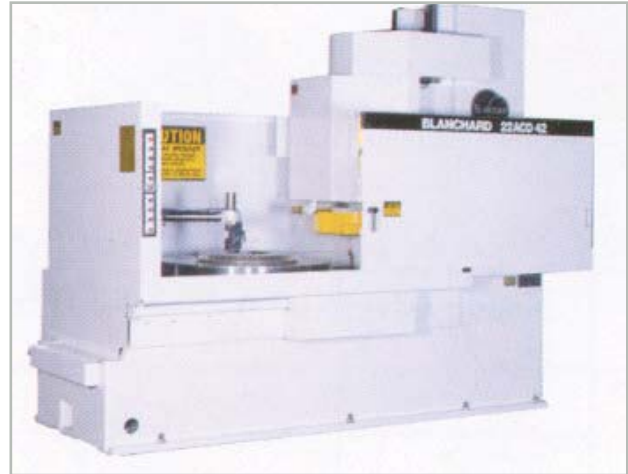
STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Blanchard 42HD-84 Rotary Surface Grinder is an 84" swing diameter vertical spindle, rotary surface grinder with control for the abrasive machining of parallelism, flatness and surface finish to single- or multiple- piece production runs.

Technical Data - Capacities & Limits	
Grinding wheel diameter	42"
Magnetic chuck diameter	84"
Outside swing inside waterguards	96"
Swing diameter inside waterguards	85"
Verticle range	33"
Maximum load on chuck	22000 lbs
Grinding wheel horsepower (HP)	150
Type of feed system	Servo
Down feed rates IPM	.001 - .096
Chuck rotation speeds RPM	3.0 - 11.9
Coolant capacity	2000 gal
Height (Approximate)	168"
Length (Approximate)	249"
Width (Approximate)	113"
Weight (Approximate Net)	80500 lbs

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle.
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

42HD-84

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Extra heavy, double wall close grain casting with integral sloping shelf	
84" diameter magnet chuck	
Traverse rack mounted on the table	
Wheel head made of heavily ribbed casting	
Three point column support	
Vertical power down feed system	
Steel sheet water guards	
Drive motor with absolute position encoder feedback system	
External coolant storage	
Oil pump circulates in impulse feed box	
Paint: Swiss White, Steel Blue, Machine Tool Gray or Vista Green	
1 operator's handbook and necessary adjusting wrenches	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
12 sets CDTXL segments	
Extended vertical range 45"/60"	
200 HP main spindle motor	
250 HP main spindle motor	
300 HP main spindle motor	
2 coolant pumps	
2 solenoid controlled coolant valves	
Pit-mounted conveyor drag-out settling tank	
Self-dumping swarf hopper	
50-cycle electrical supply	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	





72HD-120-144

B&K Blanchard Rotary Surface Grinder

ROTARY SURFACE GRINDER

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Blanchard 72HD-120-144 Rotary Surface Grinder is an 84" swing diameter vertical spindle, rotary surface grinder with control for the abrasive machining of parallelism, flatness and surface finish to single- or multiple-piece production runs.

Technical Data - Capacities & Limits	
Grinding wheel diameter	72"
Magnetic chuck diameter	120"
Swing diameter inside warterguards	144"
Vertical range	33"
Maximum load on chuck	30000 lbs
Grinding wheel horsepower (HP)	200
Type of feed system	Servo
Down feed rates IPM	.001 - .096
Chuck rotation speeds RPM	2.6 - 10.2
Coolant capacity	3000 gal
Height (Approximate)	220"
Length (Approximate)	299"
Width (Approximate)	150"
Weight (Approximate Net)	103000 lbs

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle.
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

72HD-12O-144

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Base machine extra heavy, double wall close grain casting	
120" diameter magnet chuck	
Traverse rack mounted on the table	
Wheel head made of heavily ribbed casting	
Three point column support	
Geared wheel head	
Blanchard CDT segment wheel holder, one set of abrasive segments	
Vertical power down feed system	
Steel sheet water guards	
Drive motor with absolute position encoder feedback system	
External coolant storage, dry base design	
Oil pump circulates in impulse feed box	
Floor mounted NEMA 12 electrical enclosure	
Paint: Swiss White, Steel Blue, Machine Tool Gray or Vista Green	
1 operator's handbook and necessary adjusting wrenches	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Extended vertical range to 45"	
Extended vertical range to 60"	
250 HP main spindle motor	
300 HP main spindle motor	
Power factor capacitors for 15 HP chuck rotation motor	
Power factor capacitors for 200 HP chuck rotation motor	
Power factor capacitors for 250 HP chuck rotation motor	
Power factor capacitors for 300 HP chuck rotation motor	
2 coolant pumps	
2 solenoid controlled coolant valves	
Coolant filtration system	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	





76HD-120-164

B&K Blanchard Rotary Surface Grinder

ROTARY SURFACE GRINDER

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Blanchard 76HD-120-164 Rotary Surface Grinder is an 84" swing diameter vertical spindle, rotary surface grinder with control for the abrasive machining of parallelism, flatness and surface finish to single- or multiple-piece production runs.

Technical Data - Capacities & Limits	
Grinding wheel diameter	76"
Magnetic chuck diameter	120"
Swing diameter inside warterguards	164"
Vertical range	33"/60"
Maximum load on chuck	30000 lbs
Grinding wheel horsepower (HP)	*200/*300
Type of feed system	Servo
Down feed rates IPM	.001 - .1000
Chuck rotation speeds RPM	3, 4.8, 7.8, 11.9
Coolant capacity	2000 gal
Height (Approximate)	220"
Length (Approximate)	299"
Width (Approximate)	170"
Weight (Approximate Net)	103000 lbs

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



WHAT IS THE BLANCHARD LEGACY NUMBERING SYSTEM?

1. First digit(s) denotes the dia. of the grinding wheel in inches.
2. Second set of digits denotes the dia. of the magnetic chuck in inches.
3. "A" denotes all-electric configuration (no mechanical feed box).
4. "C" denotes automatic cycle.
5. "D" denotes dry base construction. Outside coolant system required.
6. "E" denotes electronic "Auto-Zero II" automatic cycle.
7. "H" denotes high horsepower geared head design.
8. "K" denotes sludge conveyor option in wet base of machine.
9. No letter between numbers denotes standard wet base design.

76HD-120-164

B&K Blanchard Rotary Surface Grinder

Standard Equipment	
Description	
Base machine extra heavy, double wall close grain casting	
120" diameter magnet chuck	
Hydraulic table traverse	
Wheel head made of heavily ribbed casting	
Three point column support	
Geared wheel head	
Blanchard CDT segment wheel holder, one set of abrasive segments	
Vertical power down feed system	
Steel sheet water guards	
Drive motor with absolute position encoder feedback system	
External coolant storage, dry base design	
Oil pump circulates in impulse feed box	
Floor mounted NEMA 12 electrical enclosure	
Paint: Swiss White, Steel Blue, Machine Tool Gray or Vista Green	
1 operator's handbook and necessary adjusting wrenches	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
250 HP main spindle motor	
300 HP main spindle motor	
Power factor capacitors for 15 HP chuck rotation motor	
Power factor capacitors for 200 HP chuck rotation motor	
Power factor capacitors for 250 HP chuck rotation motor	
2 coolant pumps	
2 solenoid controlled coolant valves	
Coolant filtration system	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	





119 VNC

B&K Motch Single Spindle Vertical Chucker

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Motch 119VNC is a 25" swing diameter vertical chucker, with a GE Fanuc 21iT CNC control for the chucking and vertical machining of a wide range of cylindrical components in single or multiple piece production runs.

Technical Data - Capacities & Limits	
Swing diameter	25"
Spindle Nose	A2-11
Spindle Speed Range (RPM)	280-2800
X axis slide travel (work area)	12.5"
Y axis slide travel (load area)	
Z axis slide travel	17"
Feed rate X & Z (ipm)	0-125"
No. of turret stations	6
HP	50
Height (Approximate)	
Length (Approximate)	
Width (Approximate)	
Weight (Approximate Net)	12100 lbs

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



119 VNC

B&K Motch Single Spindle Vertical Chucker

Standard Equipment	
Description	
Base machine with GE 21iT CNC Control, swiveling pendant	
6 station hex turret for up to 12 tools	
Precision spindle, American Std flange nose	
Coolant distribution for turret and chip flush	
Spindle load meter	
6" hydraulic chuck actuator with drawbar	
ID/OD chuck clamping, presettable pressure	
Automatic powered door, dual push button control	
Totally enclosed chip and splash guards	
Work light	
Sealed electric cabinet with safety interlock and fans	
3 phase, 60 Hz, 460 volts	
Willy Vogel centralized lube system with safety interlocks	
Absolute encodes to retain position during power failure	
Leveling screws	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Power operated elevating chip conveyor, rear 42" discharge	
Magnetic chip conveyor	
Rosedale bag for fine filtration	
Low level coolant switch	
Oil skimmer	
"X" axis linear scale in lieu of encoder	
Foot pedal for chuck open/close	
75 HP AC spindle motor (900 rpm)	
Spindle orient package	
150 - 1500 RPM Main Spindle Speed Range	
300 - 3000 RPM Main Spindle Speed Range	
30 HP High Torque spindle drive motor	
Air Conditioner for Electrical Enclosure in lieu of standard Fan	
Contact Making Spindle Load Meter, pre-settable via "M" Code	
Spiral Bevel Gear Spindle Drive	
Special Guard for Robotic Load, including robotic interface	
Stack light	
6" diameter manifold for customer supplied mist collector	
Tool probe, column mounted	
Turret mounted part probe	
Set of leveling plates and anchor bolts	
Warranty extension to second year	
Workholding options	
GE Fanuc 21iT CNC control options	
Turret tooling	
Transformer for 3 phase, 50 Hz, 220/380/415/500 volts	
Training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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sales@bourn-koch.com



125 VNC

B&K Motch Single Spindle Vertical Chucker

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Motch 125VNC is a 25" swing diameter vertical chucker, with a GE Fanuc 16i control for the chucking and vertical machining of a wide range of cylindrical components in single or multiple piece production runs.

Technical Data - Capacities & Limits	
Swing diameter	25"
Spindle Nose	A2-11
Spindle Speed Range (RPM)	240-2410
Maximum number of tools	12
X axis slide travel (work area)	20"
Y axis slide travel (load area)	
Z axis slide travel	18"
Feed rate X & Z (ipm)	0-125"
No. of turret stations	6/8
HP	75
Height* (Approximate)	
Length (Approximate)	
Width (Approximate)	
Weight (Approximate Net)	18600 lbs

*Maximum height 91"

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



125 VNC

B&K Motch Single Spindle Vertical Chucker

Standard Equipment	
Description	
Base machine with GE 21iT CNC Control, swiveling pendant	
4 or 6 station hex turret	
Precision spindle, American Std flange nose	
Coolant distribution for turret and chip flush	
Spindle load meter	
6" hydraulic chuck actuator with drawbar	
ID/OD chuck clamping, presettable pressure	
Automatic powered door, dual push button control	
Totally enclosed chip and splash guards	
Work light	
Sealed electric cabinet with safety interlock and fans	
3 phase, 60 Hz, 460 volts	
Willy Vogel centralized lube system with safety interlocks	
Absolute encodes to retain position during power failure	
Leveling screws	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	



Optional Equipment	
Description	Price (\$)
Power operated elevating chip conveyor, rear 42" discharge	
Magnetic chip conveyor	
Rosedale bag for fine filtration	
Low level coolant switch	
Oil skimmer	
"X" axis linear scale in lieu of encoder	
"Z" axis linear scale in lieu of encoder	
Foot pedal for chuck open/close	
Spindle orient package	
150 - 1500 RPM Main Spindle Speed Range	
AC for Electrical Enclosure in lieu of standard heat exchanger	
Contact Making Spindle Load Meter, pre-settable via "M" Code	
Stack light	
Mist/Dust Collector, stand-alone	
6" diameter manifold for customer supplied mist collector	
Spiral Bevel Gear Spindle Drive	
Two speed gear box for bevel spindle drive	
Special Guard for Robotic Load, including robotic interface	
Tool probe, column mounted	
Turret mounted part probe	
7" additional "Z" axis stroke extension	
5-7" column riser to increase vertical clearance	
Steel telescopic way guards for "X" Axis	
Set of leveling plates and anchor bolts	
Warranty extension to second year	
Workholding options	
GE Fanuc 21iT CNC control options	
Turret tooling options	
Quick change tooling options	
Transformer for 3 phase, 50 Hz, 220/380/415/500 volts	
Training	
Optional Equipment Total (\$):	



135 VNC

B&K Motch Single Spindle Vertical Chucker

SINGLE SPINDLE VERTICAL CHUCKER

STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch Motch 135 VNC is a 35" swing diameter vertical chucker, with a GE Fanuc 16i control for the chucking and vertical machining of a wide range of cylindrical components in single or multiple piece production runs.

Technical Data - Capacities & Limits	
Swing diameter	35"
Spindle Nose	A2-15
Spindle Speed Range (RPM)	100-1000
Maximum number of tools	12
X axis slide travel (work area)	28"
Y axis slide travel (load area)	
Z axis slide travel	24"
Feed rate X & Z (ipm)	0-125"
No. of turret stations	6
HP	75
Height* (Approximate)	
Length (Approximate)	
Width (Approximate)	
Weight (Approximate Net)	28500 lbs

*Maximum height 91"

Technical details subject to change without notice.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.



135 VNC

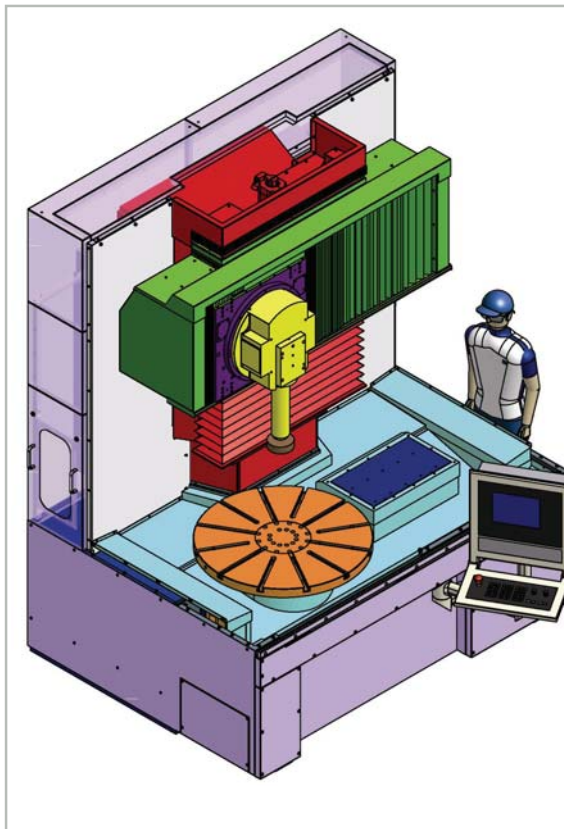
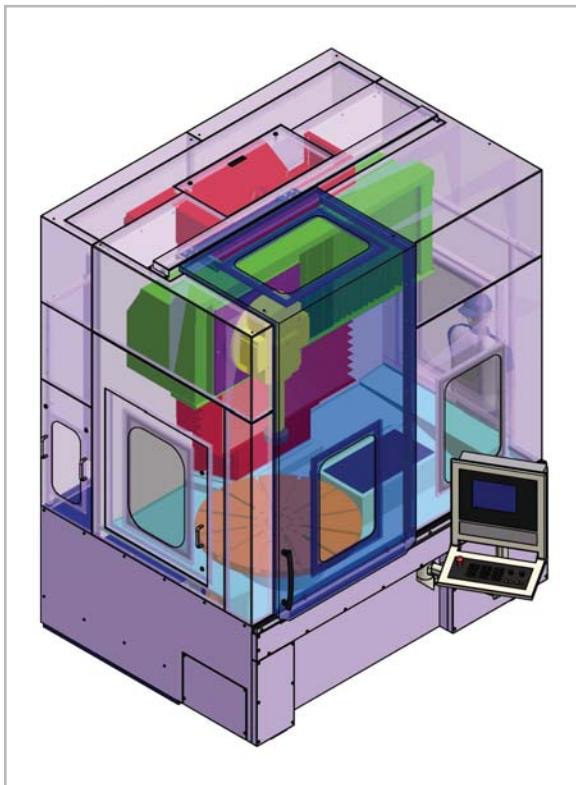
B&K Motch Single Spindle Vertical Chucker

Standard Equipment	
Description	
Base machine with GE 21iT CNC Control, swiveling pendant	
4 or 6 station hex turret	
Precision spindle, American Std flange nose	
Coolant distribution for turret and chip flush	
Spindle load meter	
6" hydraulic chuck actuator with drawbar	
ID/OD chuck clamping, presettable pressure	
Automatic powered door, dual push button control	
Totally enclosed chip and splash guards	
Work light	
Sealed electric cabinet with safety interlock and fans	
3 phase, 60 Hz, 460 volts	
Willy Vogel centralized lube system with safety interlocks	
Absolute encodes to retain position during power failure	
Leveling screws	
Paint: Sherwin Williams Swiss Dotted Off-White	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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Optional Equipment	
Description	Price (\$)
Power operated elevating chip conveyor, rear 42" discharge	
Magnetic chip conveyor	
Rosedale bag for fine filtration	
Low level coolant switch	
Oil skimmer	
"X" axis linear scale in lieu of encoder	
"Z" axis linear scale in lieu of encoder	
Foot pedal for chuck open/close	
Spindle orient package	
150 - 1500 RPM Main Spindle Speed Range	
AC for Electrical Enclosure in lieu of standard heat exchanger	
Contact Making Spindle Load Meter, pre-settable via "M" Code	
Stack light	
Mist/Dust Collector, stand-alone	
6" diameter manifold for customer supplied mist collector	
Two speed gear box for bevel spindle drive	
Spiral Bevel Gear Spindle Drive	
Tool probe, column mounted	
Turret mounted part probe	
6" additional "Z" axis stroke extension	
12" additional "Z" axis stroke extension	
6" column riser to increase vertical clearance	
12" column riser to increase vertical clearance	
Steel telescopic way guards for "X" axis	
Set of leveling plates and anchor bolts	
Warranty extension to second year	
Working options	
GE Fanuc 21iT CNC control options	
Turret tooling options	
Quick change tooling options	
Transformer for 3 phase, 50 Hz, 220/380/415/500 volts	
Training	
Optional Equipment Total (\$):	



STANDARD MACHINE SPECIFICATIONS

CNC Vertical Grinder, with cross slide for internal/external grinding of cylindrical workpieces, using a Siemens 840D CNC control with linear and circular interpolation, via B&K HMI graphic supported menu style data input with simple selection of:

- grinding process
- tool management
- part recall and process data
- inch-metric programmable, absolute and incremental
- Windows XP environment
- No CNC programming knowledge required
- HMI calculates cycle time

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.

Technical Data - Capacities & Limits

Work spindle maximum swing	1100 mm
Swing 430 mm above worktable	850 mm
Worktable diameter	1000 mm
A2 spindle nose - ASA standard	203.2 mm
Accuracy, run-out, caming	0.0025 mm
Grinding head nominal hole depth	450 mm
Slide travel - vertical "Z" axis	700 mm
Slide travel - horizontal "X" axis	825 mm
Right of center	800 mm
Maximum table weight for worktable	2000 kg
Slide traverse rates for X and Z axis	7500 mm/min
Slide feed rates for X and Z axis	1250 mm/min
Motor, grinding wheel spindle	7.5 KW
Weight (approximate net)	16,364 kg

1000VBG

CNC Vertical Grinder

Standard Equipment	
Description	
Heavy stress relieved steel weldment base, polymer composite filled	
Heavy stress relieved steel weldment column, polymer composite filled	
Cross slide and self contained grinding head	
Vertical columns are heavy, one-piece weldment of high grade	
Precision linear roller guide ways and ball screws	
Self contained workspindle	
Automatic CNC controlled guide way and ball screw lubrication	
Coolant system, including pump, motor, piping, valves, settling tank	
Single point diamond dresser	
+/-45° Vertical Slide Swivel	
Linear scale feed on both axes	
Siemens 840D CNC Control	
HMI for standard grinding cycles	
Infinitely controlled spindle speeds via CNC	
Dry floor machine enclosure with sliding doors	
Leveling screws	
Machine enclosure light	
Paint: One standard Polane color	
Documentation	
CE compliant	
ANSI and NFPA compliant	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
1000 mm Diameter work table	
CNC contouring rotary table "C" axis	
CNC rotary swivel "B" axis	
SETCO grinding spindle, motorized	
Remote pulse generator	
Chuck actuating equipment	
Barnes filtration coolant system	
Integrated RC inspection system	
Circular geometry software	
Optional roll dresser with software	
Special cam grinding software	
Contact probing of the part	
Hard turning process	
Acoustic emission sensing adaptive control	
Gap elimination	
Multiple grinding spindles, probing, hard turning HMI support	
Automatic tool changer	
Live milling/drilling tool attachments	

Optional Equipment Total (\$):	
--------------------------------	--

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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18CNC

B&K Springfield CNC Vertical Grinder Crown Type

STANDARD MACHINE SPECIFICATIONS

CNC Vertical Grinder, Crown Type for internal/ external grinding of cylindrical workpieces, using a GE Fanuc 21iT CNC control with linear and circular interpolation, inch-metric programmable, absolute and incremental programming providing:

Rapid traverse on both vertical and horizontal axes

Vector Grind interpolation of x and z axes for taper grinding

Vertical Oscillation with horizontal feed and tarry and dwell

Continuous feed in both horizontal and vertical directions

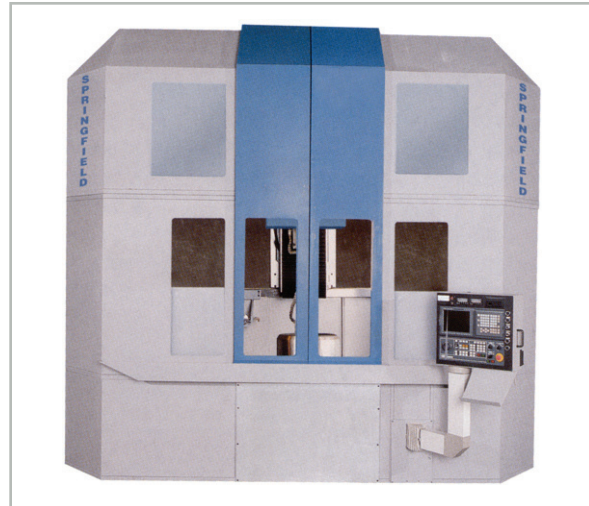
Gap Elimination

Standard Cycles

Technical Data - Capacities & Limits

Work spindle maximum swing	23 in
Work spindle speed	6-120 rpm
A2 spindle nose - ASA standard	8 in
Accuracy, run-out and camming at spindle nose	0.0001 in
Grinding head nominal hole depth	8 in
Grinding head stroke	14 in
Slide traverse rates for X and Z axis	300 ipm
Slide feed rates for X and Z axis	200 ipm
Weight (Approximate Net)	9500 lbs

Technical data is subject to change without notice.



Machine with Full Enclosure



Machine with Standard Guarding

VERTICAL GRINDER

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.

18CNC

B&K Springfield CNC Vertical Grinder Crown Type

Standard Equipment	
Description	
Heavy stress-relieved steel weldment base	
Heavy stress-relieved steel weldment crown	
Self-contained work spindle	
Cross slide and grinding head	
Automatic CNC controlled lubrication	
Coolant system, including pump, motor, piping, valves, settling tank	
Single point dresser	
Heidenhain linear scale feed on both axes	
GE Fanuc 21iT CNC	
Gap eliminator	
Standard grinding cycles	
Frequency variator of table and spindle variable speeds	
Splash guard with manual doors and safety interlocks	
Leveling screws	
Centralized lubrication system	
Paint: One standard Polane color	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
18" diameter work table	
4" face plate jaws	
Dial indicator angle setting attachment	
Rotary diamond roll dresser	
Disposable media type filtration system	
Hydraulic acutating equipment	
4" riser under crown	
18" swing water guards and sliding water guard door	
6" riser under crown	
10" riser under crown	
Heavy-duty cartridge type grinding spindle (7700 RPM)	
Extra grinding spindle pulleys	
Extra grinding spindle belts	
Wheel guards for O.D. grinding	
Full machine enclosure	
Additional machine manuals	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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36CNC

B&K Springfield Vertical Grinder Crown Type

VERTICAL GRINDER

STANDARD MACHINE SPECIFICATIONS

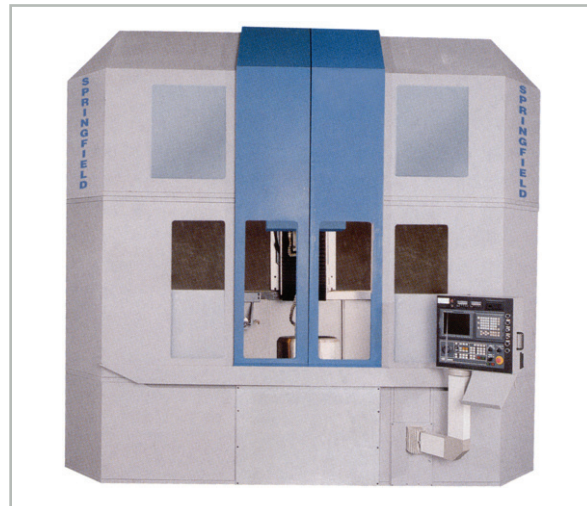
CNC Vertical Grinder, Crown Type for internal/ external grinding of cylindrical workpieces, using a GE Fanuc 21iT CNC control with linear and circular interpolation, inch-metric programmable, absolute and incremental programming providing:

- Rapid traverse on both vertical and horizontal axes
- Vector Grind interpolation of x and z axes for taper grinding
- Vertical Oscillation with horizontal feed and tarry and dwell
- Continuous feed in both horizontal and vertical directions
- Gap Elimination
- Standard Cycles

Technical Data - Capacities & Limits

Work spindle maximum swing	44 in
Work spindle speed	6-120 rpm
A2 spindle nose - ASA standard	8 in
Accuracy, run-out and camming at spindle nose	0.0001 in
Grinding head nominal hole depth	18 in
Grinding head stroke	28 in
Clearance over work table	20 in
Slide traverse rates for X and Z axis	300 ipm
Slide feed rates for X and Z axis	.0001 in - 50 in
Coolant capacity	50 gal
Weight (Approximate Net)	17500 lbs

Technical data is subject to change without notice.



Machine with Full Enclosure



Machine with Standard Guarding

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.

36CNC

B&K Springfield Vertical Grinder Crown Type

Standard Equipment	
Description	
Heavy stress-relieved steel weldment base	
Heavy stress-relieved steel weldment crown	
Self-contained work spindle	
Cross slide and grinding head	
Automatic CNC controlled lubrication	
Coolant system, including pump, motor, piping, valves, settling tank	
Single point dresser	
Heidenhain linear scale feed on both axes	
GE Fanuc 21iT CNC	
Gap eliminator	
Standard grinding cycles	
Frequency variator of table and spindle variable speeds	
Splash guard with manual doors and safety interlocks	
Leveling screws	
Centralized lubrication system	
Paint: One standard Polane color	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
36" diameter work table	
42" diameter work table	
4" face plate jaws	
Dial indicator angle setting attachment	
Rotary diamond roll dresser	
Disposable media type filtration system	
Hydraulic acutating equipment	
4" riser under crown	
18" swing water guards and sliding water guard door	
6" riser under crown	
10" riser under crown	
Heavy-duty cartridge type grinding spindle (7700 RPM, Model 3502)	
Heavy-duty cartridge type grinding spindle (4300 RPM, Model 3513)	
Extra grinding spindle pulleys	
Extra grinding spindle belts	
Wheel guards for O.D. grinding	
Full machine enclosure	
Additional machine manuals	
Setco quill type spindle 3102A	
Setco quill model 1222 or 1227	
Add second grinding slide	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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42CNC

B&K Springfield Vertical Grinder Rail Type

VERTICAL GRINDER

STANDARD MACHINE SPECIFICATIONS

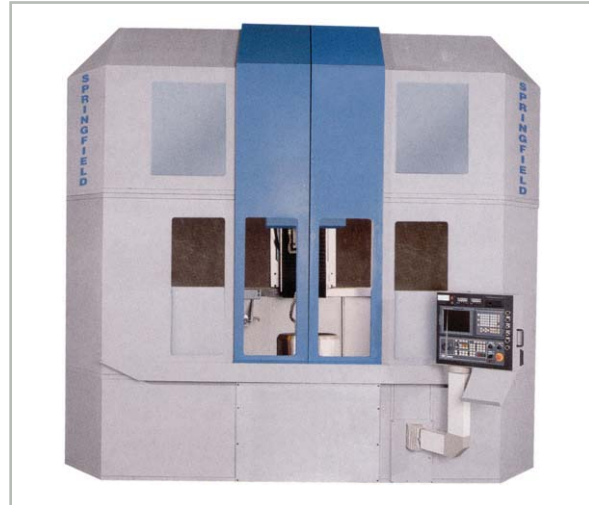
CNC Vertical Grinder, Rail Type for internal/ external grinding of cylindrical workpieces, using a GE Fanuc 21iT CNC control with linear and circular interpolation, inch-metric programmable, absolute and incremental programming providing:

- Rapid traverse on both vertical and horizontal axes
- Vector Grind interpolation of x and z axes for taper grinding
- Vertical Oscillation with horizontal feed and tarry and dwell
- Continuous feed in both horizontal and vertical directions
- Gap Elimination
- Standard Cycles

Technical Data - Capacities & Limits

Work spindle maximum swing	50 in
Work spindle speed	6-120 rpm
A2 spindle nose - ASA standard	8 in
Accuracy, run-out and camming at spindle nose	0.0001 in
Grinding head nominal hole depth	18 in
Grinding head stroke	28 in
Clearance over work table	12 - 36 in
Slide traverse rates for X and Z axis	300 ipm
Slide feed rates for X and Z axis	.0001 in - 50 in
Coolant capacity	50 gal
Weight (Approximate Net)	34000 lbs

Technical data is subject to change without notice.



Machine with Full Enclosure



Machine with Standard Guarding

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.

42CNC

B&K Springfield Vertical Grinder Rail Type

Standard Equipment	
Description	
Heavy stress-relieved steel weldment base	
Self-contained work spindle	
Cross slide and grinding head	
Vertical columns are heavy, one-piece castings of high grade	
Cross-rail elevating mechanism	
Automatic CNC controlled lubrication	
Coolant system, including pump, motor, piping, valves, settling tank	
Single point dresser	
+/-45° vertical slide swivel	
Heidenhain linear scale feed on both axes	
GE Fanuc 21iT CNC	
Gap eliminator	
Standard grinding cycles	
Frequency variator of table and spindle variable speeds	
Splash guard with manual doors and safety interlocks	
Leveling screws	
Centralized lubrication system	
Paint: One standard Polane color	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
42" diameter work table	
4" face plate jaws	
Dial indicator angle setting attachment	
Rotary diamond roll dresser	
Disposable media type filtration system	
Hydraulic acutating equipment	
4" riser under crown	
Heavy-duty cartridge type grinding spindle (7700 RPM, Model 3502)	
Heavy-duty cartridge type grinding spindle (4300 RPM, Model 3513)	
Extra grinding spindle pulleys	
Extra grinding spindle belts	
Wheel guards for O.D. grinding	
Full machine enclosure	
Additional machine manuals	
Manual or electro magnetic chuck	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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48CNC

B&K Springfield Vertical Grinder Rail Type

VERTICAL GRINDER

STANDARD MACHINE SPECIFICATIONS

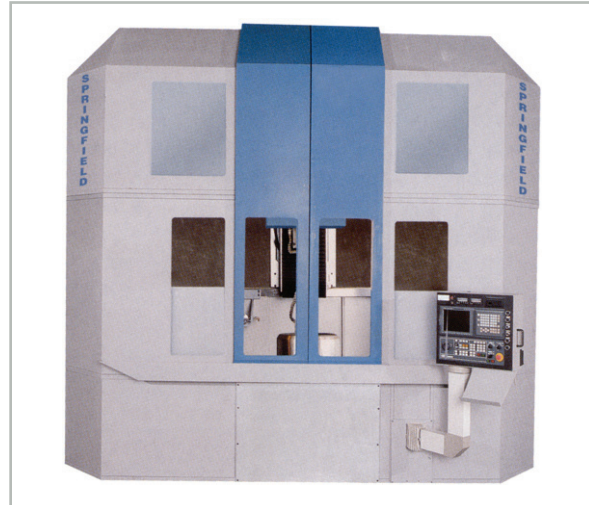
CNC Vertical Grinder, Rail Type for internal/ external grinding of cylindrical workpieces, using a GE Fanuc 21iT CNC control with linear and circular interpolation, inch-metric programmable, absolute and incremental programming providing:

- Rapid traverse on both vertical and horizontal axes
- Vector Grind interpolation of x and z axes for taper grinding
- Vertical Oscillation with horizontal feed and tarry and dwell
- Continuous feed in both horizontal and vertical directions
- Gap Elimination
- Standard Cycles

Technical Data - Capacities & Limits

Work spindle maximum swing	60 in
Work spindle speed	5-100 rpm
A2 spindle nose - ASA standard	15 in
Accuracy, run-out and camming at spindle nose	0.0003 in
Grinding head nominal hole depth	24.5 in
Grinding head stroke	36 in
Clearance over work table	12-60 in
Slide traverse rates for X and Z axis	300 ipm
Slide feed rates for X and Z axis	.0001 in - 50 in
Coolant capacity	50 gal
Weight (Approximate Net)	44200 lbs

Technical data is subject to change without notice.



Machine with Full Enclosure



Machine with Standard Guarding

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.

48CNC

B&K Springfield Vertical Grinder Rail Type

Standard Equipment	
Description	
Heavy stress-relieved steel weldment base	
Self-contained work spindle	
Cross slide and grinding head	
Vertical columns are heavy, one-piece castings of high grade	
Cross-rail elevating mechanism	
Automatic CNC controlled lubrication	
Coolant system, including pump, motor, piping, valves, settling tank	
Single point dresser	
+/-45° vertical slide swivel	
Heidenhain linear scale feed on both axes	
GE Fanuc 21iT CNC	
Gap eliminator	
Standard grinding cycles	
Frequency variator of table and spindle variable speeds	
Splash guard with manual doors and safety interlocks	
Leveling screws	
Centralized lubrication system	
Paint: One standard Polane color	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
48" diameter work table	
4" face plate jaws	
Dial indicator angle setting attachment	
Rotary diamond roll dresser	
Disposable media type filtration system	
Hydraulic acutating equipment	
Heavy-duty cartridge type grinding spindle (7700 RPM, Model 3602)	
Heavy-duty cartridge type grinding spindle (4300 RPM, Model 3613)	
Extra grinding spindle pulleys	
Extra grinding spindle belts	
Wheel guards for O.D. grinding	
Full machine enclosure	
Additional machine manuals	
Manual or electro magnetic chuck	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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48CNC

B&K Springfield Vertical Grinder Dual Head Rail Type

VERTICAL GRINDER

STANDARD MACHINE SPECIFICATIONS

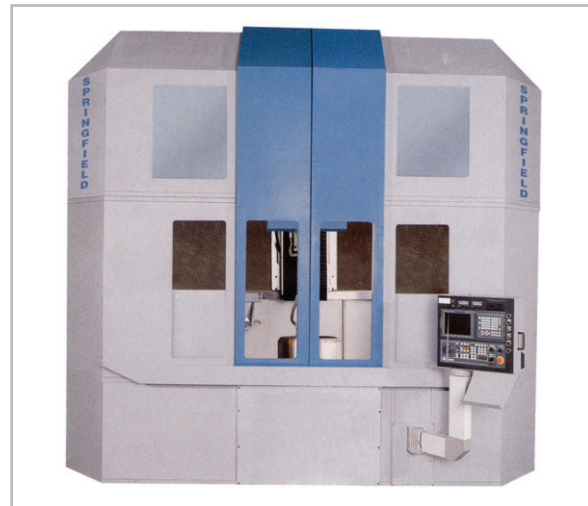
CNC Vertical Grinder, Dual Head Rail Type for ID/OD grinding of cylindrical workpieces, using a GE Fanuc 18i CNC control with linear and circular interpolation, inch-metric programmable, absolute and incremental programming providing:

- Rapid traverse on both vertical and horizontal axes
- Vector Grind interpolation of x and z axes for taper grinding
- Vertical Oscillation with horizontal feed and tarry and dwell
- Continuous feed in both horizontal and vertical directions
- Gap Elimination
- Standard Cycles

Technical Data - Capacities & Limits

Work spindle maximum swing	60 in
Work spindle speed	5-100 rpm
A2 spindle nose - ASA standard	15 in
Accuracy, run-out and camming at spindle nose	0.0003 in
Grinding head nominal hole depth	24.5 in
Grinding head stroke	36 in
Clearance over work table	12-60 in
Slide traverse rates for X and Z axis	300 ipm
Slide feed rates for X and Z axis	.0001 in - 50 in
Coolant capacity	50 gal
Weight (Approximate Net)	46100 lbs

Technical data is subject to change without notice.



Machine with Full Enclosure



Machine with Standard Guarding

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.

48CNC

B&K Springfield Vertical Grinder Dual Head Rail Type

Standard Equipment	
Description	
Heavy stress-relieved steel weldment base	
Self-contained work spindle	
Cross slide and grinding head	
Vertical columns are heavy, one-piece castings of high grade	
Cross-rail elevating mechanism	
Automatic CNC controlled lubrication	
Coolant system, including pump, motor, piping, valves, settling tank	
Single point dresser	
+/-45° vertical slide swivel	
Heidenhain linear scale feed on both axes	
GE Fanuc 18i CNC	
Gap eliminator	
Standard grinding cycles	
Frequency variator of table and spindle variable speeds	
Splash guard with manual doors and safety interlocks	
Leveling screws	
Centralized lubrication system	
Paint: One standard Polane color	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
48" diameter work table	
4" face plate jaws	
Dial indicator angle setting attachment	
Rotary diamond roll dresser	
Disposable media type filtration system	
Hydraulic acutating equipment	
Heavy-duty cartridge type grinding spindle (7700 RPM, Model 3602)	
Heavy-duty cartridge type grinding spindle (4300 RPM, Model 3613)	
Extra grinding spindle pulleys	
Extra grinding spindle belts	
Wheel guards for O.D. grinding	
Full machine enclosure	
Additional machine manuals	
Manual or electro magnetic chuck	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

Submit a
QUICK QUOTE Request



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5200 Prairie Stone Parkway, Suite 100
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62CNC

B&K Springfield Vertical Grinder Rail Type

VERTICAL GRINDER

STANDARD MACHINE SPECIFICATIONS

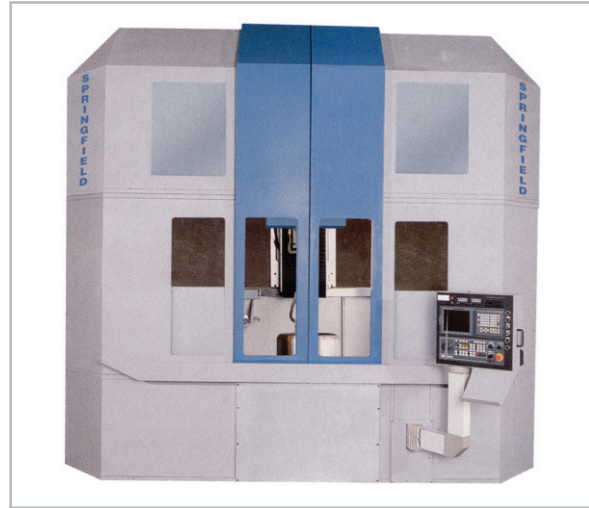
CNC Vertical Grinder, Rail Type for internal/ external grinding of cylindrical workpieces, using a GE Fanuc 21iT CNC control with linear and circular interpolation, inch-metric programmable, absolute and incremental programming providing:

- Rapid traverse on both vertical and horizontal axes
- Vector Grind interpolation of x and z axes for taper grinding
- Vertical Oscillation with horizontal feed and tarry and dwell
- Continuous feed in both horizontal and vertical directions
- Gap Elimination
- Standard Cycles

Technical Data - Capacities & Limits

Work spindle maximum swing	68 in
Work spindle speed	5-100 rpm
A2 spindle nose - ASA standard	20 in
Accuracy, run-out and camming at spindle nose	0.0003 in
Grinding head nominal hole depth	24.5 in
Grinding head stroke	27.5 in
Clearance over work table	12-48 in
Slide traverse rates for X and Z axis	300 ipm
Slide feed rates for X and Z axis	.0001 in - 50 in
Coolant capacity	50 gal
Weight (Approximate Net)	50000 lbs

Technical data is subject to change without notice.



Machine with Full Enclosure



Machine with Standard Guarding

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry and options supplied. Workholding equipment supplied.

62CNC

B&K Springfield Vertical Grinder Rail Type

Standard Equipment	
Description	
Heavy stress-relieved steel weldment base	
Self-contained work spindle	
Cross slide and grinding head	
Vertical columns are heavy, one-piece castings of high grade	
Cross-rail elevating mechanism	
Automatic CNC controlled lubrication	
Coolant system, including pump, motor, piping, valves, settling tank	
Single point dresser	
+/-45° vertical slide swivel	
Heidenhain linear scale feed on both axes	
GE Fanuc 21iT CNC	
Gap eliminator	
Standard grinding cycles	
Frequency variator of table and spindle variable speeds	
Splash guard with manual doors and safety interlocks	
Leveling screws	
Centralized lubrication system	
Paint: One standard Polane color	
Documentation	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
62" diameter work table	
4" face plate jaws	
Dial indicator angle setting attachment	
Rotary diamond roll dresser	
Disposable media type filtration system	
Hydraulic acutating equipment	
Heavy-duty cartridge type grinding spindle (7700 RPM, Model 3602)	
Heavy-duty cartridge type grinding spindle (4300 RPM, Model 3613)	
Extra grinding spindle pulleys	
Extra grinding spindle belts	
Wheel guards for O.D. grinding	
Full machine enclosure	
Additional machine manuals	
Manual or electro magnetic chuck	
Extra 36" stroke of grinding (in lieu of standard)	
Extra height 12-48" clearance over work table with 36" stroke	
Extra one foot rail travel – with standard 27.5" stroke	
Extra one foot rail travel – with optional 36" stroke	
Condensed training (no charge)	
Operator/setup course (24 hours)	
Mechanical, lubrication, maintenance, troubleshooting course	
Electrical, electronic maintenance, troubleshooting course	
Operator training, machine setup assistance, in-plant training	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

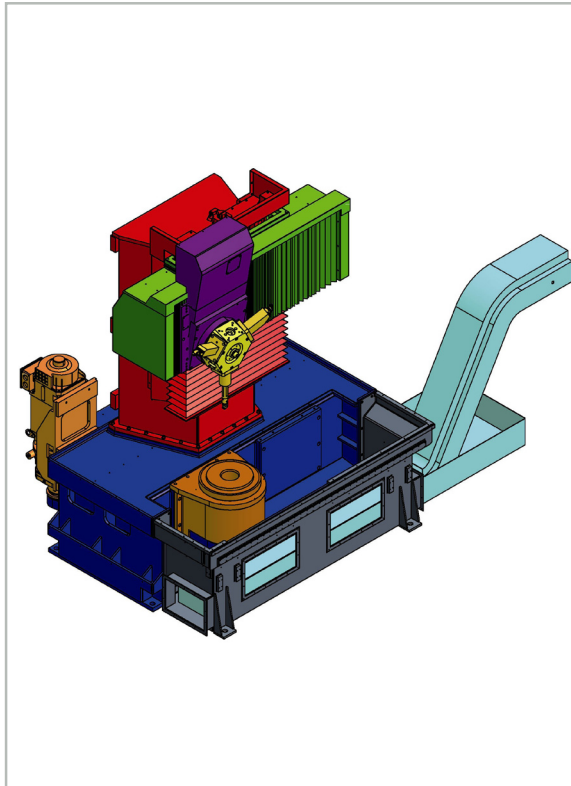
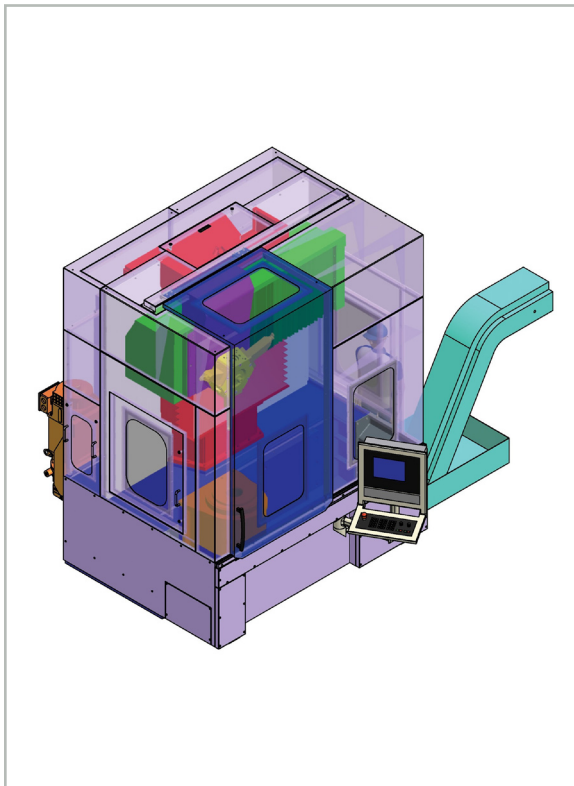
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STANDARD MACHINE SPECIFICATIONS

The Bourn & Koch 1000VBT is a 40" swing diameter vertical chucker, with a Siemens 840D CNC control for the chucking and vertical machining of a wide range of cylindrical components in single or multiple piece production runs.

Actual machine W-H-L and Weight depend on ordered configuration. Technical data is subject to change without notice and may vary according to the workpiece geometry, the loading system and the workholding equipment supplied.

Technical Data - Capacities & Limits

Max. Dia. Swing up to 430 mm above table	1100 mm
Max.Dia. Swing 430 mm above table	850 mm
Max. Dia. Turning up to 430 mm above table	1000 mm
Max. Dia. Turning 430 mm above table	850 mm
Spindle ASA Flange Nose	A2-20
Spindle Drive (AC-Digital)	60 Kw
Maximum number of tools	12
Slide travel - Vertical "Z" Axis	600 mm
Slide travel - Horizontal "X" Axis Total Travel Left of Center Right of Center	650 mm 0 mm 650 mm
Feed rate X & Z (mmpm)	0-3000
Height (approximate)	3440 mm
Length (approximate)	2590 mm
Width (approximate)	3100 mm
Weight (Approximate Net)	15,455 Kg

1000VBT

Vertical Turning Machine

Standard Equipment	
Description	
Heavy stress relieved steel weldment base, polymer composite filled	
Heavy stress relieved steel weldment column, polymer composite filled	
Cross slide and turret	
Vertical columns are heavy, one-piece weldment of high grade	
Self contained workspindle	
Coolant system, including pump, motor, piping, valves, settling tank	
Automatic CNC controlled guide way and ball screw lubrication	
Siemens 840D CNC Control	
4 or 6 station hex turret	
Precision spindle, American Std flange nose	
Coolant distribution for turret and chip flush	
CNC Spindle load meter	
6" hydraulic chuck actuator with drawbar	
ID/OD chuck clamping, presettable pressure	
Infinitely controlled spindle speeds via CNC	
Dry floor machine enclosure with sliding door	
Leveling screws	
Documentation	
CE compliant	
ANSI and NFPA compliant	
Manufactured in USA	
Standard Equipment Total (\$):	

Optional Equipment	
Description	Price (\$)
Power operated elevating chip conveyor, 42" discharge	
Magnetic chip conveyor	
Oil skimmer	
"X" axis linear scale	
"Z" axis linear scale	
Foot pedal for chuck open/close	
Spindle orient package	
100 - 1000 RPM Main Spindle Speed Range	
High/Low programmable chuck clamping force	
Programmable Spindle Load Meter	
Stack light	
Mist/Dust Collector, stand-alone	
6" dia. manifold for customer supplied mist collector	
Two speed gear box for spindle drive	
Automatic enclosure door	
Tool probe	
Optional Equipment Total (\$):	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
TOTAL (\$):	

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