



# MS650-125

B&K Fellows CNC Gear Shaper

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.

Top of Worktable

		Max. (mm)	Min. (mm)
Nominal Work Diameter	Ø	650	~
Center Distance	X	585	-10
Maximum Work Swing Diameter (mm)		1000	
Cutter Spindle Diameter (mm)		120	~
Face Width Range	V	125	
Stroke Length		145	0
Axial Slide Position (spindle face to table)	Z	565	275

Technical data subject to change without notice.  
Submit drawings for workspace 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.

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



# MS650-125

## 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	
<b>Standard Equipment Total (\$):</b>	

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	
<b>Optional Equipment Total (\$):</b>	

Total Cost:	
Standard Equipment Total (\$):	
Optional Equipment Total (\$):	
<b>TOTAL (\$):</b>	

Submit a  
**QUICK QUOTE** Request



Star SU LLC  
 5200 Prairie Stone Parkway, Suite 100  
 Hoffman Estates, IL 60192  
 USA  
 Tel.: 847 649 1450  
 Fax: 847 649 0112  
 sales@star-su.com



BOURN & KOCH INC.  
 2500 Kishwaukee Street  
 Rockford, IL 61104  
 USA  
 Tel.: 815-965-4013  
 Fax 815-965-0019  
 sales@bourn-koch.com