



MS450-125

B&K Fellows CNC Gearless Gear Shaper

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.



Top of Worktable

		Max. (mm)	Min. (mm)
Nominal Work Diameter	Ø	450	~
Center Distance	X	584	-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.



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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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