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-Of™
- 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 ($):