

Parker Majestic Liberty II CNC 14x10 Universal with Siemens 840D SL Control



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* Note: Remove or print Section 10 Option Checklist (Pages 13 - 15) and check the desired options. Email or fax these pages to your Parker Majestic Salesman to have your customized quote created.

Section 1 Standard Equipment

1 STANDARD EQUIPMENT INCLUDES:

- * High quality, CL40 40,000 PSI close grain, stress relieved cast-iron construction (Manufactured in USA)
- * Bijur automatic lubrication system - lubricating all axis ways and ballscrews
- * Choice of 208, 230 or 480 VAC, 3 Phase, 50/60 Hertz
- * 2-Tone paint scheme
- * Safety interlocked sliding access doors
- * Remote handwheel pendant
- * Input formats include Ethernet & USB
- * Accepts standard G & M codes
- * Display units in Inch or Metric
- * Chiller sized to machine specifications

WORKHEAD SPINDLE:

- * Parker Majestic water-cooled direct drive Workhead - continuous torque 40 ft-lbs (55 Nm)
- * Manually pivoting Workhead with B-Axis absolute encoder feedback, accuracy at 0.0005°
- * Pivot range is 30° toward grinding wheel, 5° away from grinding wheel
- * 0 – 1000 rpm
- * A2-5 Spindle nose mounting interface
- * Workhead accepts a 5C collet
- * Super Precision 15° angular contact bearings

SPINDLE CONFIGURATION:

- * Choice of 1 or 2 spindles (See Section 2, Options 2-4)

GRINDING SPINDLE(S):

- * OD and/or ID spindles (See Section 3, Options 5-9)

Z-AXIS - TABLE FEED:

- * Hand-scraped low-friction turcrite-lined 'V' and flat ways
- * Motion via servo-driven precision ballscrew
- * Min. programmable inc. - 0.000010" (0.0001 mm)
- * Closed loop positioning with air purged Heidenhain glass scale feedback

X-AXIS - CROSSFEED:

- * Precision rolling element linear motion bearings
- * Motion via servo-driven precision ballscrew
- * Min. programmable inc. - 0.000010" (0.0001 mm) or 0.000020" on Dia. (0.0002 mm on dia.)
- * Closed loop positioning with air purged Heidenhain glass scale feedback

PROGRAMMING FEATURES:

- * Graphic user interface
- * Single block program execution
- * Ability to program while grinding
- * Ability to program different feedrates for each profile feature
- * Manual feedrate override while grinding
- * Cycles of varying complexity to best suit the operator's needs
- * Includes conversational grind/dress cycles (listed below) that are screen prompted and do not require G & M code training to operate
- * All grind/dress cycles can be freely combined to create complex part programs at the operator level
- * All grind cycles include the ability to adjust finish sizes, as well as a regrind cycle that skips roughing operations when activated
- * Equipped with automatic grinding wheel diameter compensation

- * Optional programming available: Non-Circular Grinding (Option 23), Marposs Touch Probe (Option 24), Marposs Acoustic Gap Reduction / Crash Prevention (Option 25)

- * (5) User guided dress cycles:
Bottom, Radius, Concave Radius, Angle or Contour

- * (7) OD user guided grinding cycles:
Reciprocating, Single Plunge, Multi Plunge, Left Shoulder, Right Shoulder, Left Angle Plunge, or Contour

- * (6) ID user guided grinding cycles:
Reciprocating, Single Plunge, Multi Plunge, Left Shoulder, Left Angle Plunge or Contour

MACHINE SPECIFICATIONS:

- * Machines must pass rigorous test grinding and verification to 0.00005" (0.00127mm) or less
- * Maximum part diameter- \varnothing 14" (355.6 mm)
- * Distance between centers - 10" (254 mm)
- * Maximum weight of workpiece between centers - 500 lbs (226.8 kg)
- * Table size - 5" x 38" (127 x 965.2 mm)
- * Z-axis travel - 18" (457.2 mm)
- * X-axis travel – 9.4" (238.7 mm)
- * Footprint - 91" x 89" (2312 mm x 2261 mm)
- * Machine height - 81" (2058 mm), Stand mounted mist collector option - 106" (2693 mm)
- * Machine weight - 8000 lbs. (3628.7 kg)

TRAINING:

- * Total - 3 days training at Parker Majestic facility included
- * Additional or on-site training is quoted upon request

SHIPPING:

- * Freight costs are the responsibility of the customer
- * Parker Majestic requires shipping of all grinding machines by an air-ride carrier with provisions to protect the quality and integrity of the grinder

WARRANTY:

- * Machine warranty: parts and labor for (1) year or 2,400 Machine hours - whichever comes first
- * Bearings warranty: 90 Days
- * During the first year, 12 hours of free phone support - when exceeding this, charges may apply
- * Free shipping of warranty parts inside the continental United States
- * Alteration of any electrical or mechanical components will void the machine warranty. Special requirements should be addressed at the time of order placement.

\$249,345.00

Section 2 Grinding Spindle Configuration

2 2 Grinding Spindles with automatic rotation

- * Fibro indexing table with face gear, programmable swivel in 1° increments
- * Servo driven table with hydraulic lift and clamping
- * Includes energy efficient hydraulic power unit
- * Swivel Accuracy is +/- 1.5 arc seconds
- * Choose any two grinding spindles (spindles not included)

\$79,995.00

3 2 Grinding Spindles with manual rotation

- * Manual rotation from spindle to spindle with T-Bolt lockdown
- * Choose any two grinding spindles (spindles not included)

\$14,995.00

4 Single Grinding Spindle

- * Solid mounted wheel head bracket
- Note: Wheel head bracket does not rotate
- * Choose any spindle (spindle not included)

\$11,750.00

Section 3 Grinding Spindles

5 Parker Majestic OD Grinding Spindle

- * 3,600 max rpm, 7 Hp (5.2 kW) at 2000 rpm
- * Belt Driven and water-cooled
- * Usable Wheel Diameter: 8 - 12 inch
- * Wheel Width: 0.5 – 1.5 inch
- * Includes quantity (1) balancing wheel adapter, wheel screw, wheel puller, wheel guard, spindle mounting components, and coolant nozzle assembly
- * Does not include grinding wheels

\$37,750.00

6	Parker Majestic Motorized ID Spindle	PS-SA00011-00	<ul style="list-style-type: none"> * 15,000 max rpm, 3 Hp (2.2 kW) * Direct Drive and water-cooled * Requires 1" series Parker quills or ER 20 collets (with RD-20 collet chuck) * Includes lock nut, wrenches, spindle mounting components, and coolant nozzle assembly * Does not include quills, collets, collet chucks or grinding wheels, these items can be found in the Tool Holding section (Options 11, 12, and 13) 	\$23,475.00
7	Parker Majestic Motorized ID Spindle	PS-SA00012-01	<ul style="list-style-type: none"> * 30,000 max rpm, 3 Hp (2.2 kW) * Direct Drive and water-cooled * Requires 5/8" series Parker quills or ER-16 collets (with RD-16 collet chuck) * Includes lock nut, wrenches, spindle mounting components, and coolant nozzle assembly * Does not include quills, collets, collet chucks or grinding wheels, these items can be found in the Tool Holding section (Options 14, 15, and 16) 	\$25,995.00
8	Parker Majestic Motorized ID Spindle	PS-SA00035-00	<ul style="list-style-type: none"> * 40,000 max rpm, 3 Hp (2.2 kW) * Direct Drive and water-cooled * Requires ER 20 collets (Does not use additional collet chuck) * Includes lock nut, wrenches, spindle mounting components, and coolant nozzle assembly * Does not include collets or grinding wheels. Collets can be found in the Tool Holding section (Option 13) 	\$28,150.00
9	Parker Majestic Motorized ID Spindle	PS-SA00017-00	<ul style="list-style-type: none"> * 75,000 max rpm, 0.4 Hp (0.3 kW) * Direct Drive and water-cooled * Requires ER-8 collets * Includes bearing oil-air lubrication system * Includes lock nut, wrenches, spindle mounting components, and coolant nozzle assembly * Does not include collets, collet chucks or grinding wheels 	\$39,350.00

Section 4 Tool Holding

10	OD Balancing Grinding Wheel Adapter	PM-SA00013-00	<ul style="list-style-type: none"> * Wheel Size: Maximum 1.5" wide, 12" diameter with 5" center bore * Includes wheel adapter, flange, and balancing weights 	\$2,565.00
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11 1" Series Quills
* Used with Parker Majestic Motorized ID Spindle Style PS-SA00011 (Option 6)
* List of Quills available upon request
* Quill screw included
* Quoted price is for each

\$1,309.00

12 RD-20 Collet Chuck PM-SA00078-00
* Used with Parker Majestic Motorized ID Spindle Style PS-SA00011 (Option 6)
* Used with ER-20 collets (Option 13)
* Quoted price is for each

\$2,496.00

13 ER 20 Collets
* Used with Parker Majestic Motorized ID Spindle Style PS-SA00011 (Option 6 or 8)
* Clamping sizes available from 1/8" to 1/2" in increments of 1/16"
(Metric sizes available upon request)
* Special high accuracy - Max 0.0002" T.I.R. over entire clamping range
* Quoted when selection is made

\$0.00

14 5/8" Series Quills
* Used with Parker Majestic Motorized ID Spindle Style PS-SA00012 (Option 7)
* List of Quills available upon request
* Quill screw included
* Quoted price is for each

\$1,047.00

15 RD-16 Collet Chuck PM-SA00077-00
* Used with Parker Majestic Motorized ID Spindle Style PS-SA00012 (Option 7)
* For ER-16 collets (Option 16)
* Quoted price is for each

\$2,317.00

16 ER 16 Collets
* Used with Parker Majestic Motorized ID Spindle Style PS-SA00012 (Option 7)
* Clamping sizes available from 1/16" to 13/32" in increments of 1/32"
(Metric sizes available upon request)
* Special high accuracy - Max 0.0002" T.I.R. over entire clamping range
* Quoted when selection is made

\$0.00

Section 5 Workpiece Holding

17 Workhead A-5 Nose Face Plate
* Choice of 10" diameter or 12" Diameter, each with 4 T-slots
* Custom face plates can be manufactured to customer print
* Quoted when selection is made

\$0.00

18 Workhead Chuck and Mounting Adapter
* Standard options include:
- 6", 8", or 10" Three Jaw Scroll Chuck
- 6", 8", or 10" Six Jaw Scroll Chuck
- 6" or 8" Four Jaw Independent Chuck
- 6", 8", or 10" Rotary Permanent Magnetic Chuck
* Quoted when selection is made

\$0.00

19 5C Workhead Collets
* Clamping sizes available from 1/64" to 1-1/16" in increments of 1/64"
(Metric sizes available upon request)
* Special high accuracy - Max 0.0002" T.I.R. measured 1" from collet face
* Does not include Drawbar (Option 20)
* Quoted when selection is made

\$0.00

20 Drawbar Assembly
* Manually operated for use with 5C collets and center holders
* Does not include 5C Collet
* Precision collet closers & chucks quoted upon request

\$1,869.00

21 Dead-Center Drive
* For precision grinding parts between dead centers

Note: Cannot be used with Non-Circular Grinding

\$16,649.00

22 Lehmann Pneumatic Tailstock with Carbide Center
* Model number RST.LIG-110p
* Center Height ground to match workhead spindle
* Pneumatic actuation by manual valve
Foot pedal actuation quoted upon request

\$13,251.00

Section 6 Programming Software/Hardware

23	Non-Circular Grinding Option * Grind cycle for grinding complex shapes in ID & OD grind modes * Precision indexing with Heidenhain angular encoder upgrade – High Accuracy Incremental Feedback * Additional 2 days training at Parker Majestic facility included when purchasing this option	\$28,579.00
24	Marposs Touch Probe * E32 Drive and T25G Probe * Stylus L = 25mm Ball = 6mm * Crash Protection Pin * Stylus Retainer * Pneumatically actuated arm – Measuring position set by hard stop	\$15,015.00
25	Marposs Acoustic Gap Reduction / Crash Prevention * P3SE Amplifier * AE Microphone	\$22,019.00

Section 7 Coolant System

26	Transor Filtration System for carbide grinding applications * One Transor Filtration System with automatic back flushing - Model: # 6190-700 Dimensions 51" L x 39" W x 96" H * 9KW refrigeration system and supply pump * Filter Level: One micron (Absolute) * Filter Media: Paper Wafer (Non-consumable) * Filter Area: 70 sq. ft. * Clean Oil Flow Rate: 30 GPM * Filter start-up and operator instructions * Shop Air Pressure Required: 40 PSI (Moisture Free) * Total Oil Capacity: 185 gal. * Dielectric Viscosity required: <50 SUS @ 100 degrees F * Electrics 440V, 3 Phase 60 Hz * All field connections for electrical controls are the responsibility of the purchaser * Maximum flow based on TG-250. All fluids must be approved for use by Transor. Use of an unapproved product will nullify the warranty. (Approved oils list available upon request) * Magnetic Separator and other options available *** Filtration System and Oil Coolant to be quoted per grinding application *** *** Price subject to change per application ***	\$74,074.00
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- 27 Ebbco Evolution Series Filtration System for most metal and carbide grinding applications
- * Includes Reservoir, Filter and Machine Feed Pumps, Pre-Filter, Filter Vessel, Fluid Chiller 175 Gal Reservoir Capacity
 - * Coolant Flow to the grinding machine 30 GPM @ 30 psi 24,000 BTU/hr cooling capacity
 - * Chiller is programmable to maintain temperature +/- 0.5 degree to +/- 3 degrees
 - * Overall Dimensions 39"W x 66"L x 66"H
 - * Magnetic Separator and other options available upon request

Reservoir

- * (1) 3/16" thick carbon steel clean side/dirty side tank
- * Inside of tank is coated with rust preventative

Filter Supply Pump

- * (1) Vertical, centrifugal filter pump
- * 60 GPM @ 40 PSI
- * 5 HP TEFC motor wired for 460V, 3-Phase, 60 Hz (other voltage quoted upon request)

Filter Vessels

- * (1) Carbon steel filter vessel
- * Filter vessel to hold (3) 623 filter cartridges (replacement 5 micron cartridge available for quote)
- * Filter cartridges ordered to a specific micron rating (please specify on purchase order)

Pre-Filters

- * (4) Size #1 stainless steel filter baskets (reusable)
- * (4) Size #1 filter bags rated at 250 micron (reusable or replacement available for quote)

Electrical Controls

- * (1) NEMA-12 electrical enclosure with IEC controls and motor starters with overload protection
- * Wired for 460V, 3-Phase, 60 Hz power supply (other voltage quoted upon request)
- * Start/Stop push buttons and "power on" pilot light
- * Motor starter includes wiring between the switch and motor
- * All field connections for electrical controls are the responsibility of the purchaser

Fluid Chiller

- * (1) Cabinet-mount style chiller for consistent fluid cooling
- * Digital temperature controls
- * Chiller mounts on filtration system to decrease footprint
- * Hot gas bypass valve for precision temperature tolerances

*** Filtration System and Oil Coolant to be quoted per grinding application ***

*** Price subject to change per application ***

\$49,689.00

28 41 Gallon Coolant System
* Free standing with casters
* 25 Micron integral filter paper
* Automatic paper feed, 20 gallon/minute max filtration rate
* 1-1/2 Hp pump, 115 VAC control system
* Includes plumbing to machine

\$7,539.00

29 Digital Coolant Flow Sensor
* Monitors coolant flowing on the workpiece. If coolant stops flowing the machine retracts away from the part and cycle pauses execution

\$1,320.00

30 Adapter For Coolant Through the Workhead

\$1,149.00

31 Mist & Smoke Collector
* Royal Filtermist mist collection system mounted on independent stand
* Nordfab blast gate to isolate mist collector in the event of a fire

Note: In order to maintain warranty when grinding with oil-based coolant, this option must be included

\$7,090.00

32 Machine Enclosure Fire Suppression System
* Rotarex FireDETEC system with FM-200 agent
* Emergency stop integrated

Note: In order to maintain warranty when grinding with oil-based coolant, this option must be included

\$9,111.00

Section 8 Wheel Dresser

33 Electric Variable Speed Wheel Dresser
* GII Solutions DTS-1350
* For dressing ID and/or OD grinding wheels
* 3" max diameter dressing roll
* Integrated into machine controller for on/off control with push button or M code
* Can be mounted on the backside of the workhead, on table top or on the tailstock
* Dressing roll not included

\$27,063.00

34 Post Type Wheel Dresser
* Table mounted two point dresser custom sized to the machine's center height
* Includes standard single point diamond
\$2,523.00

35 3-Point Cylindrical Dresser
* Custom sized to the machine's center height
* Includes standard single point diamond
* Does not include chisel point diamond
\$5,422.00

Section 9 Service and Shipping

36 On-Site Machine Setup
* On-site machine setup after shipment by one Parker Majestic Technician
* Quoted upon request
\$0.00

37 On-Site Training
* Quoted upon request
\$0.00

38 Overseas Crating
* Special crating required for overseas shipment
\$2,210.00

Section 2 Grinding Spindle Configuration

Choose a Spindle Configuration:

- 2 2 Spindles Automatic Rotation 1° Increment 3 2 Spindles Manual Rotation
4 1 Spindle No Rotation

Section 3 Grinding Spindles

Choose Grinding Spindle(s):

- 5 OD Spindle – 7 Hp ____ Single or ____ Dual OD 6 Parker Majestic ID 15,000rpm 3 Hp
7 Parker Majestic ID 30,000rpm 3 Hp 8 Parker Majestic ID 40,000rpm 3 Hp
9 Parker Majestic ID 75,000rpm 0.4 Hp

Section 4 Tool Holding

Choose Tool Holding:

- None 10 OD Balancing Wheel Adapter
11 1" Series Quill – Size _____ 12 RD-20 Collet Chuck 13 ER 20 Collet – Size _____
14 5/8" Series Quill – Size _____ 15 RD-16 Collet Chuck 16 ER 16 Collet – Size _____

Section 5 Workpiece Holding

Choose Workpiece Holding:

- None 17 Faceplate – Standard _____/Custom _____
18 Chuck – Size _____/Type _____ 19 5C Workhead Collet – Size _____
20 Drawbar Assembly 21 Dead-Center Drive 22 Lehmann Pneumatic Tailstock

Section 6 Programming Software/Hardware

Choose Additional Programming/Hardware

- None 23 Non-Circular Grinding 24 Marposs Touch Probe
25 Marposs Acoustic Gap Reduction / Crash Prevention

Section 7 Coolant System

Choose Coolant System:

- None 26 Transor Filtration System 27 Ebbco Evolution Series Filtration System
28 41 Gallon Coolant System 29 Digital Coolant Flow Sensor
30 Adapter for Coolant Thru Workhead 31 Mist & Smoke Collector
32 Machine Enclosure Fire Suppression

Section 8 Wheel Dresser

Choose Wheel Dresser:

- None 33 Electric Variable Speed Wheel Dresser
34 Post Type Wheel Dresser 35 3-Point Cylindrical Dresser

Section 9 Service and Shipping

Choose Service & Shipping:

- None 36 On-Site Machine Setup 37 On-Site Training
38 Overseas Crating