

CHEVALIER®

Grinding / Turning / Milling



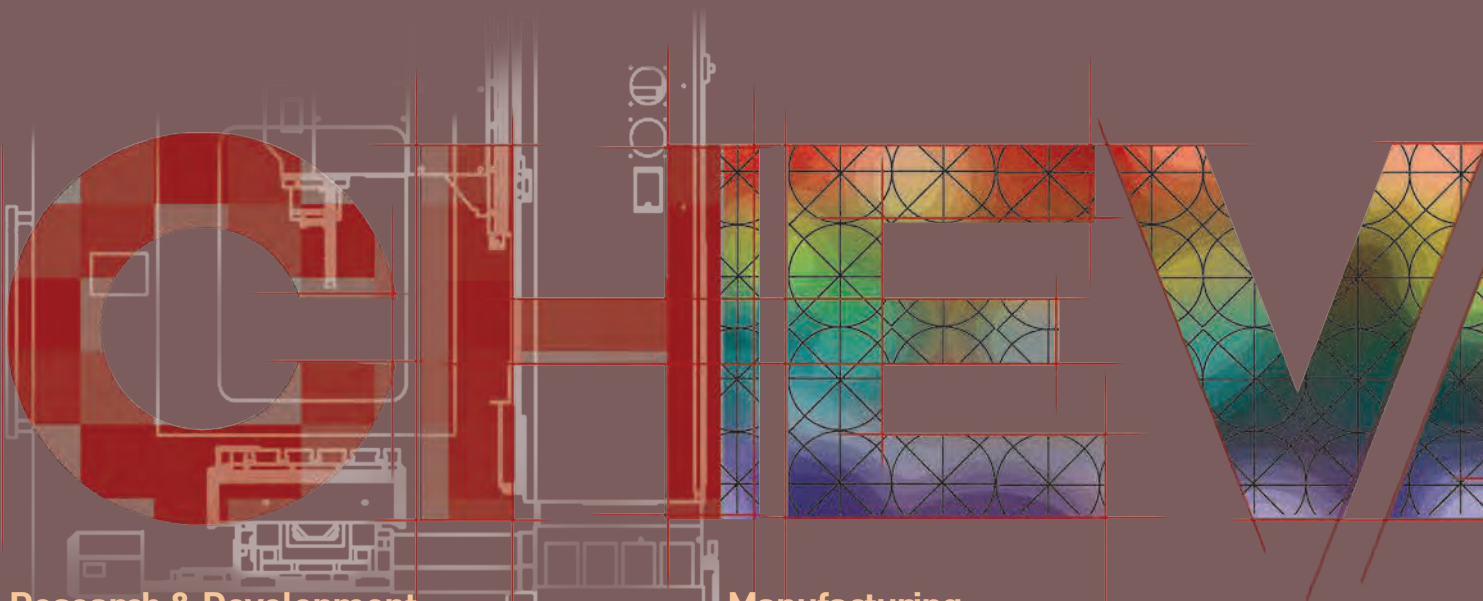
PRODUCT GUIDE

ABOUT CHEVALIER

Established in 1972, FALCON GROUP is a leading manufacturer of grinding, turning and milling machining centers. Our machines are assembled in our own ISO 9001-certified factories that include departments of R&D, machining, sheet metal production and electronics. We provide superior solutions to our clients in a variety of industries, including aerospace, automotive, construction, defense, wind turbine, gas and oil products, medical, printing, semiconductor, tool and die. Chevalier regularly exhibits its products at well-known national and international trade shows. And with our extensive network of well-qualified dealers, Chevalier offers on-time delivery, fast service and competitive pricing.

CORE TECHNOLOGIES OFFER SOLUTIONS

1. Our own developed SMART PC Based Control is a user-friendly control with conversational graphics, it is easy to learn, operate and maintain.
2. Steel box way machine construction offers machine with higher precision and better rigidity and longer life time.



Research & Development



Our R&D division includes design, prototype development, applications, electrical and electronics.

Manufacturing



Spindle assembly in temperature controlled clean room for increased accuracy and stability.

RESEARCH AND DEVELOPMENT

The R&D division uses 3-D/Pro-E software that enables designers to achieve Finite Element Analysis and dynamic simulation through all phases of the design process. This ensures maximum accuracy, flexibility and rigidity of all Chevalier machines.

MANUFACTURING FACILITIES

Most precision machining process are completed in-house with dedicated, top-notch CNC manufacturing machines. All structural assembly work, including electrical and controls, are assembled by our team of highly trained and experienced assembly engineers.

NEW INTELLIGENT GANTRY TYPE AUTOMATIC ALUMINUM WHEEL PRODUCTION EQUIPMENT

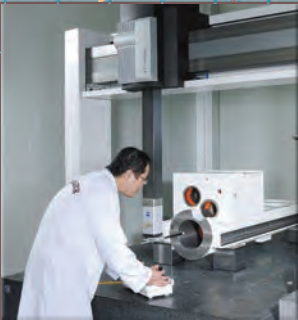
This highly efficient Intelligent Gantry Type Automatic Production Line includes Vertical Lathe and Vertical Machining Center, cooperated with automatic loading and unloading system, and workpiece identifying, positioning, flipping, cleaning and in-process measuring systems. This automatic production line is developed and tested by our own R&D department and Application team.



With high speed of double jaws robot arm movement, vertical direction at 60 m/min., and horizontal direction at 80m/min., the production efficiency of this system is significantly increased. Our professional team is capable to study customers' requirement and design the complete production line including automatic loading and unloading system, and clamping fixture to meet the expectation of our valued customers.

CHEVALIER

Quality Assurance



Coordinate measuring machine (CMM) for mechanical component inspection. The CMMs provide the tools to precisely inspect critical dimensions.

QUALITY ASSURANCE

Chevalier follows the most-stringent quality control process, from casting to assembly to final testing. After assembly, all of our machines are measured and calibrated by laser calibration and ball bar test equipment. This ensures precise verification and compensation of our machines, resulting in increased accuracy and repeatability. QA engineers, who oversee inspection stations, design our machines to ensure that all aspects of the manufacturing process meet the designer's specific requirements.

Sales and Service



Highly experienced service engineers, technical and sales staff travel around the world to give assistance to our distributors and end-users.

SALES, SERVICE AND PARTS

Customer satisfaction is always the highest priority in Chevalier. Our knowledgeable service engineers, technicians and sales representatives travel around the world to provide assistance to our dealers and end-users. Chevalier's network of dealers in more than 80 countries are thoroughly trained to adhere to Chevalier's superior customer service standards.

Our modern warehouse facility in the Los Angeles area maintains a comprehensive inventory of parts for all machines sold in the United States and Canada. A well-educated staff also conducts thorough service training programs for our dealers and end-users.

GRINDING MACHINE



DOUBLE COLUMN GRINDING MACHINE

FPG-60120DC • 60160DC • 60200DC • 100160DC • 100200DC • 100240DC • 100400DC • 100480DC • 120200DC • 120515DC SERIES
(Available in Other Sizes)

- SMART Control and Moving Beam Type
- Table Size (W x L): up to 3,000 x 13,000 mm (118" x 512")
- Max. Table Load: up to 80,000 kg (176,000 lb)
- Spindle Speed: 500 to 2,000 rpm
- Horizontal Head: 40 HP
Vertical Head: 20 HP
- Total Rated Power: 15 to 110 HP

FSG-4060DC • 4080DC • 40120DC • 40160DC • 5060DC • 5080DC • 50120DC • 6060DC • 6080DC • 60120DC • 60160DC SERIES
(Available in Other Sizes)

- SMART Control and Fixed Beam Type
- Table Size (W x L): up to 1,500 x 4,000 mm (59" x 157")
- Max. Table Load: up to 35,000 kg (77,000 lb)
- Spindle Speed: 500 to 2,000 rpm
- Spindle Motor: up to 25 HP on Horizontal Head, Optional Vertical Head up to 20 HP (FSG-60DC Series)
- Greater Spindle HP Available (FSG-60DC Series)
- Total Rated Power: 30 to 80 HP

VERTICAL GRINDING CENTER

FVG-4040DC

- SMART Control
- Table Size Dia.: up to 1,000 mm (40")
- Max. Table Swing: 12,000 mm (47")
- Max. Table Load: 2,000 kg (4,400 lb)
- Spindle Speed: 8,000 rpm
- Main Spindle Motor: 10 HP
- Work Table Axis: 0 to 100 rpm
- ID. Grinding Range: 50 to 1,000 mm (2"-40")
- OD. Grinding Range: 1,200 mm (47")
- Max. Grinding Length:
OD. 700 mm (28")/ID. 700 mm (28")
- X-Axis: -790 mm (-31.1")/+1700 mm (+66.9")
Total Travel 2,700 mm (106")
- Z-Axis: 900 mm (35")



SURFACE AND PROFILE CNC GRINDER

FSG-B818CNC • C1224CNC • B2440CNC • B2460CNC • B2480CNC SERIES

- 3-Axis CNC
- SIEMENS or FANUC CNC Control
- Table Size (W x L): up to 600 x 2,000 mm (24" x 80")
- Column Moving
- Capable of Creep Feed Function
- Spindle Speed: 500 to 3,500 rpm
- Spindle Power: 15 HP (Optional 50 HP) Greater Spindle HP Available

DOUBLE-SIDED FINE GRINDER

FDG-700

- SMART Control
- Wheel Dia.: Ø700 mm (27.6")
- Max. Workpiece Dia.: Ø205 mm (8.1")
- Max. Workpiece Grinding Thickness: 25mm (1")
- Max. Load Pressure: 600 kPa
- Upper Disk: Power 5.5 kW (7.5 HP)/ Speed 60 Hz, 125 rpm
- Lower Disk: Power 5.5 kW (7.5 HP)/ Speed 60 Hz, 125 rpm
- Inner Disk: Power 2 kW (2.7 HP)/ Speed 60 Hz, 75 rpm
- Accuracy: ± 0.0001"

LINEAR MOTOR DRIVE GRINDER

FGP-608LM

- SMART Control and SIEMENS Linear Motor or FANUC Control and FANUC Linear Motor
- 3-Axis Closed Loop Electronic Control
- Table Size (W x L): 150 x 200 mm (6" x 8")
- Spindle Speed: up to 20,000 rpm
- Max. Table Speed: 100 m/min
- X-Axis with 2.5G Acceleration

FULLY AUTOMATIC GRINDING MACHINE

FSG-2040IV • 2060ADIV • 2440ADIV • 2460ADIV • 2480ADIV • 24120ADIV SERIES

- Touch Screen Monitor
- 3-Axis Fully Automatic
- Touch Screen Monitor
- Table Size (W x L): up to 600 x 3,000 mm (24" x 120")
- Auto Dressing and Compensation (Optional)
- Elevation is Driven by Servo Motor
- Precisely Scraped Turcite-B on X and Z-Axis
- Spindle Power: up to 15 HP, Greater Spindle HP Available
- In-Machine Dynamic Wheel Balancing



PRODUCTION CNC GRINDER		SURFACE AND PROFILE CNC GRINDER	
FMG-1632CNC-HD <ul style="list-style-type: none"> Table Size (W x L): 410 x 810 mm (16" x 32") Max. Table Load: 1,500 kg (3,326 lb) Column Moving, and Capable of Creep Feed Function Spindle Speed: 1,800 rpm (Optional 6,000 rpm) Table Speed: <ul style="list-style-type: none"> X-Axis 10 to 25,000 mm/min (0~88 fpm) Y-Axis 0 to 3,800 mm/min (0~12.5 fpm) Z-Axis 0 to 4,000 mm/min (0~13 fpm) Spindle Motor: up to 75 HP 		FSG-H818CNC • H2440CNC • H2460CNC • H2480CNC SERIES <ul style="list-style-type: none"> 2-Axis CNC SIEMENS or FANUC Control Table Size (W x L): up to 600 x 2,000 mm (24" x 80") Hydraulic Driven X-Axis Column Moving 2-Axis Simultaneous Spindle Power: up to 50 HP Spindle Speed: 500 to 3,500 rpm 	
		SMART-H818III • H1224III • H1640III • H2440III • H2460III • H2480III SERIES <ul style="list-style-type: none"> 2-Axis CNC Conversational SMART Control (PC Based) Table Size (W x L): up to 600 x 2,000 mm (24" x 80") Hydraulic Driven X-Axis Spindle Motor: up to 15 HP Greater Spindle HP Available Standard Spindle Speed: 600 to 2,500 rpm (H818III 1,000 to 7,000 rpm) 	
		SMART-B818III • B1224III • B1640III • B2440III • B2460III • B2480III SERIES <ul style="list-style-type: none"> 3-Axis CNC Conversational SMART Control Table Size (W x L): up to 600 x 2,000 mm (24" x 80") Spindle Power: up to 25 HP Greater Spindle HP Available Standard Spindle Speed: 600 to 2,500 rpm (B818III 1,000 to 7,000 rpm) (Higher Spindle Speed is Available on Request) 	



		SEMI-AUTOMATIC GRINDER	MANUAL GRINDER	
FSG-1224ADIV • 1632ADIV • 1640ADIV SERIES <ul style="list-style-type: none">● Touch Screen Monitor● 3-Axis Fully Automatic● Table Size (W x L): up to 400 x 1,000 mm (16" x 40")● Auto Dressing and Compensation (Optional)● Elevating and Crossfeed are Driven by Servo Motor● Elevating and Crossfeed are Equipped with Ballscrew● 3-Axis Needle Roller Guide Way● Spindle Power: up to 10 HP● In-Machine Dynamic Wheel Balancing	FSG-3A818 • 3A1224 SERIES <ul style="list-style-type: none">● 3-Axis Automatic● Table Size (W x L): up to 300 x 600 mm (12" x 24")● Double "V" Turcite-B Saddles Ways● Hydraulic Drive: 1 HP/ 2 HP● Crossfeed Drive: 1/6 HP● Elevating Drive: 1/4 HP● Spindle Speed: up to 3,450 rpm● Spindle Power: up to 5 HP	FSG-2A618 • 2A818 • 2A1224 SERIES <ul style="list-style-type: none">● 2-Axis Automatic: X-Axis by Hydraulic System Z-Axis by Motor● Table Size (W x L): up to 300 x 600 mm (12" x 24")● Z-Axis with Double "V" Ways and Electric Motor● Hand Scrapped Turcite-B Used on X and Z-Axis● Spindle Speed: 3,500/1,750 rpm● Spindle Power: 2 HP/ 5 HP● Hydraulic Drive: 1 HP/ 2 HP● Crossfeed Drive: 1/6 HP● Elevating Drive: 1/4 HP	FSG-618M SERIES <ul style="list-style-type: none">● Ball Table Ways● Double "V" + Turcite-B on Z-Axis● Table Travel: 175 x 480 mm (7" x 19")● Chuck Size: 150 x 450 mm (6" x 18")● Table Surface to Spindle Center: 450 mm (18")● Spindle Speed: 3,450 rpm● Spindle Power: 2 HP	ACCUGRIND-612SP • 618SP • 818SP SERIES <ul style="list-style-type: none">● Double "V" + Turcite-B on Z-Axis● Table Size (W x L): up to 200 x 450 mm (8" x 18")● Ballscrew on Crossfeed● Spindle Speed: 3,450 rpm● Spindle Motor: 2 HP● Table Surface to Spindle Center: 500 mm (20")

TURNING MACHINE



VERTICAL TURNING LATHES

FVL-1250 • 1600 • 2000VTC SERIES

- FANUC or SIEMENS Control
- Box Way Structure
- Spindel Motor: up to 100 HP
- Max. Swing Dia.: up to 2,500 mm (98")
- Table Dia.: up to 2,000 mm (78")
- Max. Weight: up to 13,600 kg (30,000 lb)
- Transmission: 2-Speed Gearbox
- Live Tooling, C and Y-Axis Available
- Grinding Attachment Available
- Milling and Grinding Function Available

FVL-8 • 12 • 20 • 24 SERIES

- FANUC Control
- Box Way
- Spindle Servo Motor: up to 40 HP
- Max. Swing Dia.: up to 858 mm (34")
- Max. Spindle Speed: 50 to 2,000 rpm
- Chuck Size: up to 600 mm (24")
- Turret No.: up to 2 sets
- Live Tooling and C-Axis Available
- Tailstock Version Available

HEAVY-DUTY HORIZONTAL TURNING LATHES

FBL-500 SERIES

- Slant Bed Heavy-Duty Large Bore Lathe with FANUC Control
- Dual Chucks Capability
- Swing Over Bed: up to 1,030 mm (41")
- Spindle Motor: up to 60 HP
- Transmission: 2-4-Speed Gear Box
- Chuck Size: up to 800 mm (32")
- Bar Capacity: up to 381 mm (15")
- Turning Length: up to 4,000 mm (160")
- Live Tooling and C-Axis Available
- Programmable Tailstock

FBL-360 • 460 SERIES

- FANUC Control
- 45 degree Slant Bed Lathe with Highly Rigid Box Way
- Swing Over Bed: up to 840 mm (33")
- Spindle Motor: up to 50 HP
- Transmission: 2-Speed Gearbox
- Chuck Size: up to 381 mm (15")
- Bar Capacity: up to 140 mm (5.5")
- Turning Length: up to 2,026 mm (80")
- Live Tooling and C-Axis Available
- Programmable Tailstock

MILLING MACHINE



DC HEAVY-DUTY BRIDGE MACHINE

FVM-DC BRIDGE TYPE SERIES

- Table Size (W x L): up to 5,100 x 3,000 mm (200" x 118")
- Table Load: up to 18,000 kg (39,600 lb)
- Travel X/Y/Z: up to 5,000 x 3,400 x 1,000 mm (198.8" x 133.8" x 39.3")
- Spindle Speed: up to 6,000 rpm/ Optional 8,000 rpm
- Spindle Motor: up to 26 kW (35 HP) [Optional]
- Spindle Taper: BT50/CT50/DIN50
- Box Way Design

DCL BRIDGE MACHINE

FVM-3016DCLII • 4016DCL SERIES

- Table Size (W x L): up to 1,450 x 4,100 mm (57" x 161")
- Table Load: up to 10,000 kg (22,000 lb)
- Travel X/Y/Z: up to 4,100 x 1,550 x 680 mm (161" x 61" x 26.7")
- Spindle Speed: 6,000 rpm Gear/ Optional 10,000 rpm Belt Driven
- Spindle Motor: up to 26 kW (35 HP) [Optional]
- Spindle Taper: BT50/CT50/DIN50
- Roller Guide Way Design

FVM-DCL SERIES

- Z-Axis with 400 x 400 mm (16" x 16") Box RAM Design
- Table Size (W x L): up to 6,000 x 3,000 mm (240" x 118")
- Table Load: up to 20,000 kg (44,000 lb)
- Travel X/Y/Z: up to 6,000 x 3,400 x 1,000 mm (240" x 133" x 39")
- Spindle Taper: BT50/CT50
- Automatic Head Change [Optional]
- Horizontal and Vertical Tool Change Magazine [Optional]
- Roller Guide Way Design

HORIZONTAL BORING MACHINE

FBB-110 SERIES

- Column Type with Rotary Table
- W-Axis Included
- Travel X/Y/Z/W: up to 2,000 x 1,800 x 1,500 x 700 mm (78.7" x 70.8" x 59" x 27.5")
- Table Load: up to 10,000 kg (22,000 lb)
- Spindle Speed with Gear Box, up to 2,500 rpm, 22 kW
- Spindle Taper: BT50/CT50
- Full C-Axis Rotary Table
- 110 mm (4") Quill with Optional 130 mm (5")



MULTI-AXIS TURNING/MILLING LATHES			HIGH-SPEED TURNING LATHES
FBL-230 • 300 SERIES <ul style="list-style-type: none"> • FANUC Control • 45 degree Slant Bed Lathe with Highly Rigid Box Way • Swing Over Bed: up to 654 mm (26") • Spindle Motor: up to 25 HP • Transmission: 2-Speed Gearbox • Chuck Size: up to 305 mm (12") • Bar Capacity: up to 77 mm (3") • Turning Length: up to 1,554 mm (61") • Live Tooling and C-Axis Available (FBL-300) 	FNL-250Y/SY • 320Y/SY SERIES <ul style="list-style-type: none"> • FANUC Control • Multi Tasking Lathe with Y-Axis Milling and Sub Spindle • Spindle Motor: 20 HP • Spindle Speed: up to 4,500 rpm • Max. Swing: 600 mm (24") • Max. Turning Dia.: 460 mm (18") • Max. Turning Length: 560 mm (22") • Bar Capacity: up to 75 mm (3") • BMT Live Turret • Servo Tailstock 	FNL-220LSY <ul style="list-style-type: none"> • FANUC Control • Multi Tasking Lathe with Y-Axis Milling and Sub Spindle • Spindle Motor: 20 HP • Spindle Speed: up to 4,500 rpm • Max. Swing: 620 mm (24.4") • Max. Turning Dia.: 270 mm (10.6") • Max. Turning Length: 510 mm (20") • Bar Capacity: up to 65 mm (2.6") • BMT Live Turret • Servo Tailstock 	FCL-120 • 140 • 200 • 300 SERIES <ul style="list-style-type: none"> • FANUC Control • Slant Bed Lathe with Linear Guide Way • Swing over Bed: up to 600 mm (24") • Spindle Speed: up to 6,000 rpm • Spindle Motor: up to 25 HP • Chuck Size: up to 250 mm (10") • Bar Capacity: up to 75 mm (3") • Turning Length: up to 700 mm (28") • Live Tooling and C-Axis Available (FCL-200/FCL-300)



5-AXIS VERTICAL MACHINING CENTER		HEAVY-DUTY PRODUCTION VMC	HIGH-SPEED VMC	
UNi5X-800 <ul style="list-style-type: none"> • Table Size: Ø800 mm (Ø31.5") • Table Load: 1,300 kg (2,866 lb) • Travel X/Y/Z: 800 x 900 x 650 mm (31.5" x 35.4" x 25.6") • Workpiece Dimensions: 800 x H600 mm (31.5" x H23.6") 	UNi5X-400 <ul style="list-style-type: none"> • FANUC/SIEMENS/HEIDENHAIN Control • Transmission Type Direct Drive • Table Size: Ø320 mm (Ø12.6") • Table Load: 100 kg (220 lb) • Travel X/Y/Z: 750 x 610 x 550 mm (29.5" x 24" x 21.6") • Workpiece Dimensions: 400 x H350 mm (15.7" x H13.7") 	QP2033 • 2040 • 2443 • 2855 SERIES <ul style="list-style-type: none"> • FANUC/SIEMENS/HEIDENHAIN Control • Box Way Structure Other Control Available • Table Size (W x L): up to 1,500 x 650 mm (59" x 25.6") • Table Load: 1,600 kg (3,250 lb) • Travel X/Y/Z: up to 1,400 x 700 x 600 mm (55" x 27.6" x 23.6") • Spindle Speed: up to 40~10,000 rpm • Tool Change: Arm Type 	QP1620-L • 2033-L • 2040-L • 2440-L • 2560-L SERIES <ul style="list-style-type: none"> • FANUC/SIEMENS/MISTUBISHI/HEIDENHAIN/SMART control • Linear Guide Way • Table Size (W x L): up to 635 x 1,500 mm (25" x 60") • Table Load: 1,500 kg (3,300 lb) • Spindle Speed: up to 15,000 rpm • Spindle Motor: up to 25 HP • Tool Change: Arm Type 	EM1620L • 2033L • 2040L SERIES <ul style="list-style-type: none"> • FANUC/SIEMENS/MISTUBISHI/SMART control • Linear Guide Way • Table Size (W x L): up to 510 x 1,200 mm (20.1" x 47.2") • Table Load: 600 kg (1,320 lb) • Spindle Speed: up to 10,000 rpm • Spindle Motor: up to 25 HP • Tool Change: Arm Type

GLOBAL SALES AND SERVICE

Taiwan Headquarters; Chang Hua

U.S.A. Headquarters; Los Angeles

China Headquarters; Suzhou

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ASIA

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Belgium

Bulgaria

Czech Republic

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Germany

Finland

France

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