



**GANESH
MACHINERY**
The Edge in Cutting.

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GANESH VFM-2818 EXPRESS HIGH-SPEED CNC MACHINING CENTER

COMBINING STRENGTH WITH SPEED FOR OPTIMUM PRODUCTIVITY!



Featuring:

- 12,000 RPM ***Inline Direct-Drive Beltless Spindle***
- ***Big-Plus*** dual contact High-Performance precision ground spindle
- 1,417 IPM rapid rates in all three axis for fast production
- 24-Tool High-Speed Twin-Arm Tool Changer - CAT or BT #40 Tooling
- 300 PSI "Through-the-Spindle" coolant system with rotary coupling
- 4th and 5th axis wiring included with the machine

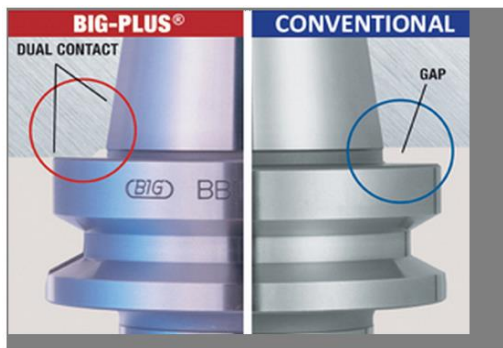
GANESH VFM-2818 EXPRESS



The VFM-2818 combines strength and speed for high productivity

The rigidity of the massive Meehanite processed cast iron frame provides a high-strength cutting platform with superior vibration dampening for improved surface finish & extended tool life so the VFM-2818 can handle all your tough materials like stainless steel and titanium. The rigidity and strength of the cross-roller linear guideways used in all three axes provides both a high table load capacity and high-speed rapid movements. This combination of strength and speed allows flexibility in the efficient processing your work. The speed makes the machine ideal for materials like aluminum and steel, and the strength of the cross-roller ways and the powerful spindle motor allows for efficient machining of Inconell and stainless. The large worktable allows the placement of a 4th axis indexer and two vises on the table simultaneously, allowing for both processing flexibility and faster setup over a wide mix of work. Oversized double anchored and pre-tensioned ballscrews with 3-NSK bearings at each end on all 3-axes are utilized for superior metal removal rates and superb size control.

“Big-Plus” Dual-Contact High-Performance Precision Ground Spindle



Both the flange and flange face are in contact for:

- Increased Tool Rigidity
- Reduced Tool Runout
- Increased Tool Life
- Increased Cutting Capability
- Superior Tool Length Repeatability

Use standard tools for general work, and Big-Plus tools for superior results in demanding applications.

STANDARD GANESH VFM-2818 EXPRESS FEATURES:

24-Tool High-Speed Twin-Arm Tool-Changer –

Having 24 tools allows you to have more jobs setup on the machine, or to run more complex work that requires more tools. Having redundant tools allows you to make use of the tool-life management system.

Beltless Direct Drive Spindle –

The quiet beltless direct-drive spindle provides fast acceleration and greater spindle control in high-speed tapping applications for increased productivity with the benefit of low heat rise and reduced maintenance.

Through-The-Spindle Coolant –

The standard 300-PSI through-the-spindle coolant system provides improved tool life and superior chip control, increasing overall machine productivity. A 1,000 PSI coolant system is optional.

Chip Wash-Down & Chip Conveyor –

The machine includes a separate coolant pump for chip wash down on all sides, to flush the chips to the front of the sheet metal enclosure where they are collected, so the chip conveyor can efficiently discharge them from the left side of the machine to simplify maintenance. (The chip discharge height is 38”).

Oil-Separator Unit –

The included oil-separator unit collects the tramp oil and drains it into a separate receptacle to reduce maintenance and extend coolant life. Reduced maintenance interruptions help increase machine productivity.

4th & 5th Axis Prewired –

The wiring to upgrade the machine for use in 4th and 5th axis applications is included with waterproof quick-disconnect connectors already mounted in the work enclosure. This speeds up the transition to upgraded productivity when needed, allowing a greater amount of work to be completed in one operation.

Auto Power Shut Off –

The control's auto shut off feature automatically shuts down the machine once a long program is finished. This capability enhances your ability to let the machine run lights-out for extended production capability.

Air Counter Balance (in case of power failure) –

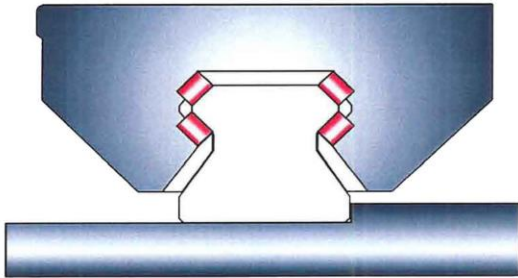
The machine features an air counter balance on the vertical column to prevent the “Z” axis from dropping down in case of a sudden power failure, saving expensive fixtures and tools. The Z-axis motor is equipped with a brake to lock the Z-axis position in case of power failure.

Ball-Bar Testing –

The **geometric ball bar test** conducted on each machine checks for servo gain synchronization, backlash, lateral play, squareness, and straightness to ensure your machine will perform to our rigid accuracy and performance standards. **Laser inspection technology** is employed to measure linear and pitch error accuracy and repeatability to ensure high quality machine performance. The spindle is **dynamically balanced** to ensure long term production performance. Premium quality ball screws are double-anchored and pre-tensioned, and then 100% inspected for parallelism to the axis guideways. The rotational torque of each ballscrew is inspected over the entire length of travel to guarantee a true smooth non-binding alignment to ensure maximum service life and the highest possible machining accuracy.

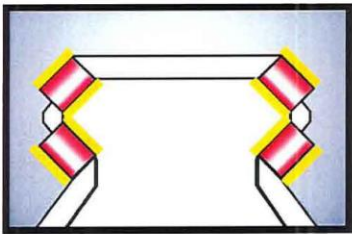
**The Ganesh VFM-2818 is manufactured in our
Certified ISO 9001 Production Facility in Taiwan.**

GANESH Cross-roller guided ways give our customers:



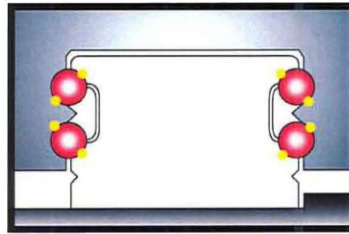
- ▶ Higher Accuracy
- ▶ Great Rigidity
- ▶ Superior load capacity in all directions
- ▶ Excellent crash safety
- ▶ Increased operating life

GANESH



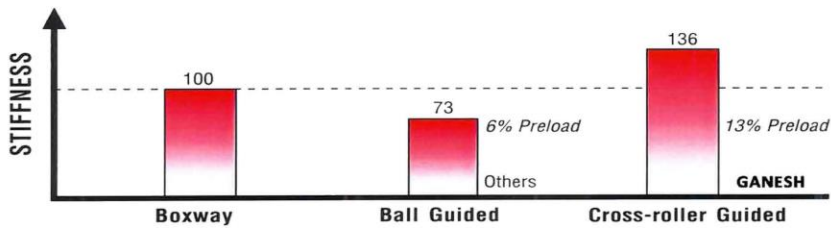
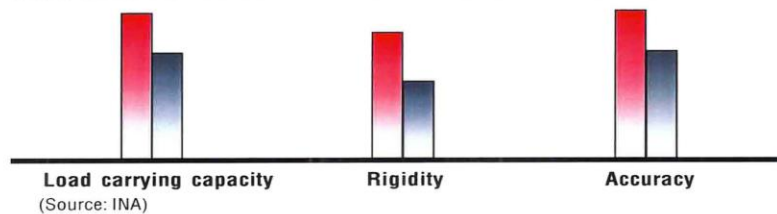
SURFACE CONTACT AREA BEARING/RACE TANGENCY

Others



SURFACE CONTACT AREA BEARING/RACE TANGENCY

■ GANESH - Cross-roller Guided
 ■ Most Competition - Ball Guided



VFM-2818 TECHNICAL SPECIFICATIONS

AXIS TRAVEL

X-Travel	27.95"	710mm
Y-Travel	17.716"	450mm
Z-Travel	18.11"	460mm
Spindle Nose to Table Surface	5.11" – 23.62"	150 – 600mm
Spindle Center to Z-axis way covers	17.71"	450mm (throat dimension)

TABLE

	Hardened & ground table & T-slots	
Table Size (LxW)	29.92" x 16.53"	760mm X 420mm
T-slot width (3 T-slots total)	18 mm	on 100mm centers
Max. Table Load	2,205 lbs.	1000 kgs load for full accuracy

SPINDLE

Spindle Motor – 7.5/11 kW	15-HP 30-min rating	10-HP (7.5 kW) constant duty rating
Spindle Speed – <i>Inline Direct-Drive</i>	12,000rpm	(6,000, 8,000 & 15,000rpm optional)
Spindle Torque	50 ft-lb @ 1,500 rpm	
Tool Type	CAT #40 Taper	BT #40 optional
Spindle Taper Material / Hardness	SCM415 / HRC 58-62	
Spindle Runout	≤ 0.000040" T.I.R.	
Spindle Bearings - Front	110mm NSK 70BNR	2, P4 class-7 bearings
Spindle Bearings - Rear	110mm NSK 70BNR	2, P4 class-7 bearings
Retention System / Holding Capability	Bellville Spring Stack	1650-1760 lbs
Retention Knob Specification	#40 Japanese standard, JMTBA double 45° head angle Ø.590"	
	- ANSI 5/8"-11 UNC, , Ø.394" neck, 1.266 tool top – head top, .990" tool top – bottom of 45° angle	

AXIS FEEDS

Accuracy X, Y, & Z axis (JIS6338)	± 0.0002" / 12"	± 0.005mm over 300mm travel
Repeatability X, Y, & Z axis (JIS6338)	± 0.0001" / 12"	± 0.003mm over 300mm travel
Least Input Command Increment	0.0001" / 0.000040"	0.001mm / (40-millionths in metric)
Rapid Traverse X, Y, & Z	1,417 ipm	36m / minute
Cutting Feedrate	0.02 - 393 ipm	10m / minute
Axis Drive Motor Power – X, Y	2.7-HP (2.0kw)	Mitsubishi HF 204S-3000
Axis Drive Motor Power - Z	4.0-HP (3.0kw)	Mitsubishi HF 303SB w/brake
Ballscrews – X, Y, Z	32mm ballscrews	12mm pitch
Thrust Force – Z (maximum / constant)	4408 lbs / 2204 lbs	2,000 kg / 1000kg

TOOL CHANGER

Tool Capacity (24+1)	24-Tool Twin-Arm	Hi-Speed Tool Changer
Tool Shank	CAT#40 Taper	BT#40 optional
Tool Change Time	1.7-sec. tool-to-tool	
Maximum Tool Diameter / w/adjacent tool	5.90" / 3.15"	150mm / 80mm
Maximum Tool Length (from gage line)	11.81"	300mm
Maximum Tool Weight	15 lbs.	7kg
Tool Selection / Tool Access	Random access	Bi-directional shortest path

SPECIFICATIONS

Air Service Requirements	85 psi @ 14-scfm	
Electrical Requirements - connected load	220vac ±5%, 60-Hz	50-Amp Service
Coolant Capacity / Pressure	68-gallons / 300 psi	256 liters / 20-bar
Floor space requirements (W x D x H)	86" x 81" x 113"	221x206x288cm (add 45" for conveyor)
Shipping dimensions (W x D x H)	97" x 91" x 101"	246x229x256cm
Machine Weight	10,582 pounds	4,800 kg
Warranty – 1-year machine warranty	3-year Mitsubishi control, motors, & drive warranty	

MITSUBISHI M830 HIGH-PERFORMANCE CNC CONTROL



Leading the way in today's industrial globalization is the all new **Mitsubishi M830 High-Performance CNC control** creating higher levels of productivity, intuitive usability, and superior functionality. The advanced control algorithm uses a newly developed Mitsubishi CNC-dedicated CPU running at 270,000 blocks per minute with 2000-block look-ahead under NANO control with Super Smooth Surface control for superior surface finishes. Incorporating the CNC-dedicated CPU in the new series M830 CNC not only results in phenomenal processing speed, but also reduces the number of required components, leading to fewer possibilities of failure and increasing product quality. The ultra-high speed fiber-optic drive communication (3 times faster) and distributed architecture delegates routine motion control operations to intelligent servo and spindle amplifiers reducing cycle processing time and improving processing speed and productivity. Operators appreciate the ergonomics of the easy-to-use Human Machine Interface that can be easily customized. New improved Navi Conversational programming, background editing, modal program search to restart the program at the exact point of interruption, tool and workpiece pick-up measurement, Two 32 GB SD memory Card Slots plus USB, and tool-life monitoring for rapid setup and lights-out operation are all standard. Program validation uses 3-dimensional solid model graphics.

- **Mitsubishi developed CNC-Dedicated 64-Bit CPU with highly efficient RISC architecture**
- **New 15" Touch Screen** that operates like a smart phone or tablet which includes 3D solid model graphics that can pinch-in to zoom, pinch-out, drag, edit, rotate, and scroll.
- **Includes Two 32GB High-Speed** SD memory card slots for data storage & DNC operation
- **2000 block buffered look-ahead** and a blazing **270,000 block per minute processing speed**
The features above work in harmony to provide faster program throughput & greater productivity
- Mid-program restart function for operator convenience after a program interruption
- Dampened backlash compensation eliminates spiking during the axis reversal moves for higher accuracy machining, superb surface finishes, and exacting feature definition.
- 1-nanometer interpolation with 2000-block look-ahead provide fine surface finishes and detailed arc and radius features follow the program commands precisely
- Least input and command increment: 0.1µm
- 4-axis simultaneous contour control capability & high-speed synchronous rigid tapping
- Graphics –Tool path and 3-D part shape can be drawn to help detect errors at an early stage
- NC Monitor – monitoring of machine screens for observation on a remote PC
- Intuitive HMI for ease of operation with rapid setup & changeover and “on the fly” tool offsets
- Program copy, move, delete functions, and input guidance screens help create part programs
- Ethernet RJ-45, USB, RS-232, & SD Card ports provide a choice of communications.
- Mitsubishi high performance matched motors and drives yield exacting program feature definition.
- 3-year Mitsubishi control, motor, and servo drive warranty

Machine operation and service manuals are provided with each machine in electronic format on a USB memory stick. Printed manuals are also available for your use for a \$150 printing fee.

GANESH VFM-2818 3-Axis Pricing

VFM-2818 3-Axis VMC Production Package

\$84,990.00

Includes all of the productivity features shown below:

Mitsubishi High-Performance M830 Control, motor, and drive package -

A 1-year machine warranty & 3-year Mitsubishi control, motor, and drive warranty is provided.



The Mitsubishi M830 control features
2000-Block Look-Ahead
For High-Speed Contouring



Fanuc OiMF control and drive package is available for \$6,995 with 2-year warranty.

• 12,000 RPM Direct-Drive Beltless Spindle
• Big-Plus dual-contact High-Performance precision spindle
• 24-Tool High-Speed Twin-Arm Tool-Changer
• 300 PSI “Through-the-Spindle” Coolant with rotary union
• Chip Conveyor - <i>Link-Belt Style w/ 40” Barrel-Height Discharge</i>
• Chip Wash- Down System - washes chips into conveyor
• Full Machine Enclosure <u>w/Top Covers</u> & precut exhaust duct
• Spindle Air Blast by M-Code
• Spindle Oil Cooler – Thermostatically controlled
• Coolant oil-separator unit to control coolant contaminants
• Remote Operator MPG Hand wheel
• High-Speed Synchronous Rigid Tapping
• 4 th and 5 th Axis Prewired with quick-disconnect connectors
• Dual LED High-Intensity Worklamps
• 6 -Thru-Tool-Coolant Pull Studs

UNBEATABLE VMC VALUE & PERFORMANCE!

Machine Options

- BT-40 tooling system in lieu of standard CAT#40 tooling system \$795.00
- 1,000 PSI High-Pressure Thru-the-Spindle Coolant System(Add \$500 net for installation) \$9,995.00
- Bag Filter - For filtering fine chips for small through-the-tool passages – fits on pump inlet \$695.00
- Coolant Skimmer Unit – works with the standard oil-separator unit to help remove tramp oil \$595.00
- SpiderCool – Servo controlled programmable coolant nozzle w/sweep feature - single nozzle \$2,250.00
 Uses Teach-Mode to learn every tool length, good to 300 PSI - dual controlled nozzles \$3,545.00
 (Add \$500 net for Ganesh installation for either SpiderCool unit)
- 15,000 RPM spindle speed upgrade – 40-Taper \$5,995.00
- 15,000 RPM spindle speed upgrade – HSK-63A (24-tool pockets available) \$5,995.00
- 20,000 RPM spindle speed upgrade – HSK-63, 30-HP 30-min rated, 87 ft. lbs. torque \$19,995.00
- Second-year machine warranty \$4,490.00
- Voltage Stabilizers and Transformers (specify voltage needs) P.O.R.
- Heidenhein linear scales for all 3-axis \$9,995.00
- Renishaw TS27R Wired tool length & diameter setter, with broken tool detection.
 1.0um repeatability, with tool probing macros and installation included. \$1,834.00
- Renishaw OTS Optical tool length & diameter setter, with broken tool detection.
 1.0um repeatability, tool probing cycles and OMI-2T Optical receiver unit all installed. \$2,990.00
- Renishaw OMP-60 Optical Part Probe with stylus, tool shank, and part probing macros.
 0.25um repeatability, part probing cycles and OMI-2T Optical receiver unit, installed. \$4,990.00
 The OMP-60 Optical high-precision probe enables fast, reliable measurement for more efficient part set-up and inspection for improved process control and part quality.

Add \$500 net for Ganesh installation of each Renishaw device.

SPECIAL FACTORY RENISHAW PROBING PACKAGE OFFER	
OTS tool setting and OMP-60 part probing with OMT-2T optical receiver.	\$6,990.00
Add \$1000 net for Ganesh installation.	

Tooling & Work Holding

- Tooling Package – 10-CAT or BT-40 Balanced Toolholders, Includes: \$1,895.00
 2 ER-16, & 2 ER-32 Toolholders, 6-standard toolholders (specify size)
- 10 Thru-Tool-Coolant retention knobs, ER-16 & ER-32 collets sets and wrenches
- \$5,000 Sandvik Tooling Certificate \$4,250.00
- Spare Thru-Tool-Coolant retention knobs - each \$19.95



Need Automation?
MIDACO PALLET CHANGERS
AND FANUC ROBOTS AVAILABLE

Rotary Options

Expand your machine capability by another dimension!

See the Ganesh Rotary Options Brochure for a complete listing of available 4th & 5th axis options.

Training & Terms of Sale

FREE Training – Ganesh Machinery offers a 3-day training program for all production CNC machines at our training center. The intense training program includes basic manual programming, machine setup, operation, and operator level maintenance for those with a working knowledge in the programming & setup of CNC machines. Training does not cover CAD/CAM systems or Manual Guide-i type of programming. There is no charge for the training program at Ganesh for our customers. Turn-key projects are an available option charged at the prevailing hourly rate.

Travel Package for Training at Ganesh – Ganesh offers a subsidized travel package for those flying to LAX or Burbank for training at Ganesh in Chatsworth that includes air fare, 3-nights hotel shuttle to and from Ganesh, and lunch for the 3-days of training at \$1,995.00.

On-Site Training – Training is offered at the customer site at the rate of \$975 per day plus expenses.

Warranty – 3-year Mitsubishi control & drive warranty. 2-year Fanuc control & drive warranty. 1 full year Ganesh parts and labor warranty on the machine.

Service – Ganesh or your authorized Ganesh trained servicing dealer provides installation, service, and training included in the price of the machine. Spare parts are stocked at Ganesh in Chatsworth to support your continued machine operation.

F.O.B. Point – Machines ship F.O.B. Ganesh Machinery from Chatsworth, CA 91311.

Payment Terms – 20% down payment with your Purchase Order secures the machine. 70% is due prior to machine shipment, and the 10% balance is due net-30 days after installation. **Or the machine can be financed with a Ganesh approved lender.** Leases with \$1.00 buyout are available upon approved credit.

Delivery Schedule – Delivery is stock to 12-weeks, subject to prior sales.

Purchase is governed by the Ganesh Machinery terms and conditions of sale.

UL & TÜV ELECTRICAL APPROVAL IS AN AVAILABLE OPTION

Prices and specifications subject to change without prior notice.

A large compliment of spare parts are in stock at Ganesh to ensure your continued operation.

SERVING INDUSTRY SINCE 1985



**Ganesh Headquarters
Chatsworth, CA**



4,000 Square Feet Showroom



In-House Training Center



Fully Stocked Parts Room

TERMS & CONDITIONS OF SALE

General Offer & Applicable Law

Products and services furnished by Ganesh Machinery (referred to herein as "we", "us" and "our") are sold to you ("Customer") only on the terms and conditions stated herein. Notwithstanding any terms or conditions on Customer's orders, our performance of any contract is expressly made conditional on Customer's agreement to these terms and conditions of sale. All contracts for the sale of products shall be construed under and governed by the laws of the State of California. All orders shall be subject to our acceptance.

Prices & Specifications

All published prices and specifications are subject to change without notice. Unless otherwise specified in writing, all quotations are firm and expire thirty days after the date thereof. Unless otherwise stated, all prices, published or quoted, shall be exclusive of insurance and any and all taxes and transportation costs.

Transportation & Acceptance

We reserve the right to select the means of transportation and routing if we determine that Customer's instructions are unsuitable. Customer shall be responsible for all risk of loss and/or damage commencing upon delivery of the products to the transportation company at the F.O.B. point. Title to any products shall pass to Customer when products are delivered to the transportation company at the F.O.B. point. All products must be inspected by Customer immediately upon receipt and any claims should be filed with the transportation company when there is evidence of shipping damage, even if the damage is concealed. The furnishing of a product to Customer shall constitute acceptance of that product by Customer unless notice of defect or nonconformity is received by us within ten-days of receipt of the product at Customer's designated receiving address. We may repair or, at our option, replace defective or nonconforming parts after receipt of notice of defect or nonconformity.

Performance

We shall be excused for delay in delivery and/or may suspend performance of any contract for the sale of products and services without liability to Customer in the event and to the extent of a "force majeure" which shall include strike, lockout, riot, war, fire, flood, explosion, act of God, accident, or subcontractor or supplier delays or other events beyond our control. We reserve the right to substitute suitable products, when we determine in our sole discretion that such substitution is necessary due to a force majeure. No order may be terminated by Customer without our written consent. Machines are not designed to conform to UL or OSHA Standards. It is Customer's sole responsibility to verify the electrical standards applicable to any machines purchased subject to these terms and conditions in their locality.

Warranty & Liability for Machine Sales

Our machines, including accessories and spare parts purchased and/or included with the machine sale, are guaranteed to be free from defects in workmanship for twelve months after the date of purchase, unless specified otherwise in writing. This warranty is effective only if the necessary information is provided: serial number of machine and nature of defect, and any part claimed defective is returned prepaid to us. No such return will be accepted unless we issue a returned material authorization (RMA) number. Upon its proper return to us, we shall repair or replace, at our option, the defective part. This warranty applies only if (a) our instructions as to installation, operation and maintenance have been completely followed; (b) the products have been used solely under normal operating conditions or procedures; (c) the products have been properly installed, operated and maintained and have not been affected by misuse, neglect or accident; (d) Customer has not attempted or performed (or caused to be attempted or performed) any type of repair or corrective work or modification without our prior written consent and (e) we shall have received notice of any defect no later than thirty days after Customer first has knowledge of same. THIS WARRANTY IS EXPRESSLY IN LIEU OF, AND EXCLUDES ALL OTHER EXPRESS, IMPLIED OR STATUTORY WARRANTIES INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, USE OR APPLICATION AND ALL OTHER OBLIGATIONS OR LIABILITIES ON OUR PART. The remedy of repair or replacement, as provided herein, shall be the Customer's exclusive remedy and will satisfy all our liabilities whether based upon contract, negligence, or otherwise. In no event shall we be liable for incidental, consequential, punitive or special damages, or losses.

Warranty & Liability for Accessory & Spare Part Sales

Accessories and spare parts purchased after the original machine sale are guaranteed to be free from defects in workmanship for 90-days after the date of purchase, unless specified otherwise in writing. This warranty is effective only if the necessary information is provided: original date of purchase and nature of defect, and any part claimed defective is returned prepaid to us. No such return will be accepted unless we issue a returned material authorization (RMA) number. Upon its proper return to us, we shall repair or replace, at our option, the defective part. This warranty applies only if (a) our instructions as to installation, operation and maintenance have been completely followed; (b) the products have been used solely under normal operating conditions or procedures; (c) the products have been properly installed, operated and maintained and have not been affected by misuse, neglect or accident; (d) Customer has not attempted or performed (or caused to be attempted or performed) any type of repair or corrective work or modification without our prior written consent and (e) we shall have received notice of any defect no later than thirty days after Customer first has knowledge of same. THIS WARRANTY IS EXPRESSLY IN LIEU OF, AND EXCLUDES ALL OTHER EXPRESS, IMPLIED OR STATUTORY WARRANTIES INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, USE OR APPLICATION AND ALL OTHER OBLIGATIONS OR LIABILITIES ON OUR PART. The remedy of repair or replacement, as provided herein, shall be the Customer's exclusive remedy and will satisfy all our liabilities whether based upon contract, negligence, or otherwise. In no event shall we be liable for incidental, consequential, punitive or special damages, or losses.

Indemnity and Hold Harmless

Customer agrees to indemnify and hold Seller harmless for any and all claims, liability, costs, expenses, or losses arising out of or relating to the sale or use of the products which are the subject of this sale, including, but not limited to, unattended use of the equipment, bodily injury or death or any fire or other calamities resulting from Customer's use of any machine sold hereunder whether any such claims, liability, costs expenses or losses are suffered by customer or any third party.

Compliance with Manuals, Instructions and Good Safety Practices; Compliance with Laws

Customer shall be responsible for ensuring compliance by its personnel and others given access to any products in Customer's possession or control with all operating and maintenance manuals and instructions provided by us or any of our distributors and with other normal safety, operation and maintenance practices commonly observed in the industry. Compliance with local, state or federal laws, codes, directives or regulations relating to the products and their use is the sole responsibility of Customer, and we make no warranty or representation with respect thereto.

Terms of Payment

All payments for products released and shipped on approved credit accounts shall be due in full thirty days from the date of invoice. Past due balances shall be subject to a service charge of 1.5% per month. Partial shipments will be billed as made and payments therefore are subject to the above terms. We may cancel or delay delivery of products or services in the event Customer fails to make prompt payment therefore or in the event of arrearage in Customer's account. We maintain all rights of a secured party by reference to applicable Uniform Commercial Code provisions in effect in each state in which the products are located.

Arbitration

All disputes under any contract concerning products sold to Customer pursuant to these terms and conditions that are not otherwise resolved between Customer and us shall be resolved through mandatory and binding arbitration to be conducted in Los Angeles, California and in accordance with the Commercial Arbitration Rules and Mediation Procedures of the American Arbitration Association ("AAA") strictly in accordance with the terms of the contract, these terms and conditions and the substantive laws of the State of California, before a single arbitrator knowledgeable in the subject matter of the dispute selected in accordance with the procedures of the AAA. The parties hereby consent to the service of process by registered mail, return receipt requested or by any other manner provided by the laws of the State of California and hereby waive any claims or defenses based on venue or forum non conveniens. Any related arbitration award will be final, conclusive and binding upon the parties and any judgment thereon may be entered and enforced in any court of competent jurisdiction. To the extent reasonably practicable, all disputes of a similar subject matter relating to more than one contract between any one Customer and us concerning products sold pursuant to these terms and conditions shall be consolidated into a single arbitration proceeding.

Attorneys' Fees

Should any legal action or arbitration be brought for the enforcement of these terms and conditions, or due to any alleged dispute, breach, default or misrepresentation in connection with any provisions herein, the non-prevailing party shall pay all reasonable attorneys' fees, expert witness fees and other costs and expenses, as well as arbitration costs and recoverable court costs, incurred by the prevailing party in any such action or proceeding and any action to enforce a judgment (including bankruptcy representation) and any appeal, in addition to such other relief, as may be granted to the prevailing party by the arbitrator or, if applicable, a court.

Fire Waiver

Customer shall be solely responsible for the appropriate use of the products, including, without limitation, the machining of certain metals that use oil as the cutting and cooling medium which can provoke the ignition of oil mists, fillings, chips or parts of a machine which could cause considerable damage to a machine and its surroundings. By accepting the products sold hereunder, Customer assumes this risk and is hereby required to use best efforts to avoid such incidents and to limit any potential risk or exposure to life and property arising therefrom.