FLEXICAM

CNC Routers

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FLEXICAM

Global Offices

FlexiCAM's headquarters are in Eibelstadt, Germany, 5 minutes from the historic town of Würzburg, and 1 hour east of Frankfurt. FlexiCAM has offices around the world, with employees receiving training at our head office in Germany before working in our branch office. For further localized support we have local Solution Partners, who come to our factory in Germany to participate in scheduled training sessions to keep them up to date on our newest technology and training on our extensive product line.

By design, all FlexiCAM products have the ability for online support through the Internet. With offices around the world, we are able to provide you with support from any of our offices, even if it is in the middle of the night there will be an office open somewhere. There is always a trained technician available to help you with questions you might have. Support by technicians in all offices is conducted in English to avoid any communication barriers.

Working with our team you will find it easy to choose a product, making use of our cutting edge technology, to automate your tasks, faster and easier than you ever thought possible.

FLEXICAM

CNC Routers

FlexiCAM CNC Routers' primary mission is to ensure you, our customer, is completely satisfied with your dealings with us from beginning to end. First, that means that we want you to be comfortable from the minute you start talking to us. Our factory-trained sales team will take the time to explain every aspect of each machine, whether large or small, and will never pressure you into something unwanted. If you have a specific application that you would like to use the machine for, we will offer you a demonstration of your type of work on a machine you may be considering. The same salesperson will take time to explain benefits and options, including software, router bits, and any other components that go into creating a cutting solution for you.

But that's just the beginning of your relationship with FlexiCAM. We want to be your one stop solution for any supplies, accessories and components that you use with your router. As well as being able to obtain support from your local FlexiCAM Customer Service Centers, we give you access to our global network of trained sales and technical staff combining for hundreds of years of experience, available for you to use as a resource. If you have any questions about your machine's operation, please feel free to contact us if ever you need a quick refresher or need help with operation or job setup. Compare prices, quality of workmanship and our service, and you will certainly want to be a FlexiCAM customer.

We strive to give you the best value for your money, and above all we build our machines for quality. With internationally known component manufacturers you can be assured of reliability, with *Gear Boxes* from Germany, *Servo Motors* from Japan, *Bearings* from Germany, *Spindles* from Italy, we integrate components from the world over, to ensure that you are getting the best quality parts available to you, all delivered at a fair price.

FlexiCAM is more than a manufacturer of CNC Routers, we are also a manufacturer of the motion control systems that are used on our machines. This tight integration ensures that you are getting a system that is specifically designed to work with the mechanics. We continually develop our control systems, offering you upgrades to your firmware so that your system stays current with what we are shipping out our factory's doors.

I invite you to contact a member of our team, be it for a question regarding a router bit selection, or for development of a production automation solution, and allow us to show you the difference we can make for your business.

Alexander Vogel
President

Who are we

With numerous offices and technology centers all around the world, FlexiCAM has grown to become a market leader in the CNC router industry. With constant innovative additions to our product line and our commitment to quality products has insured FlexiCAM as a industry leader in manufacturing solutions.

History

FlexiCAM GmbH. is part of the Vogel Group which was established in 1988 by Alexander Vogel. Before the introduction of FlexiCAM Routers, the Vogel Group was a solution provider for router customers, servicing, customizing, selling and conducting maintenance on routers manufactured by European and North American companies. From these experiences we learned, what to do and what not to do when manufacturing, and taking care of the customer. After extensive development and testing, the FlexiCAM product line was released in early 1998, to a great response.

Since that time, FlexiCAM has continued to develop its control technology, offering customers upgrades to the latest options and features that have been added to the system. We strive to make sure that your system doesn't become outdated by delivering remote firmware upgrades available for your controller, so you can have the same product that is shipping out of the factory.

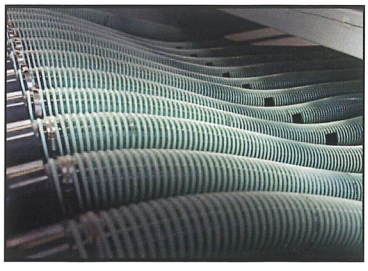
The product line has continued to evolve with our moving table systems, as well as our Advanced Control Systems, allowing for customized application solutions, for ever demanding customer requirements.

Customer Service Center

Platinum Partners Trained sales personnel and technicians are on staff to provide you with options for optimizing your business' production, with a one-stop shop for machinery, CAD and CAM software, tooling, and application engineering. These factory trained technicians and sales engineers will help you find a machine that will work best for your budget and production requirements.

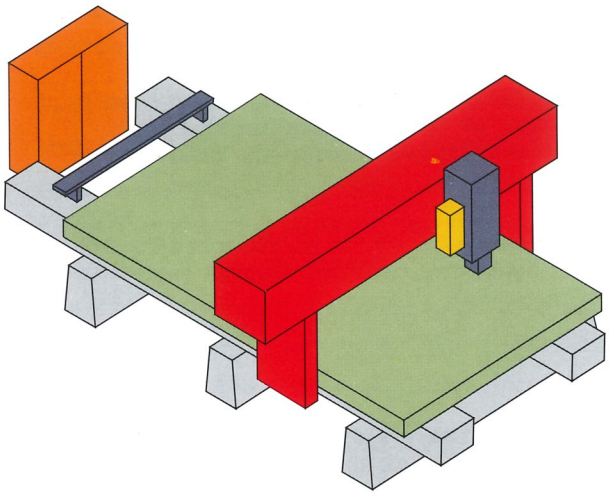
Gold Partners After completion of training at FlexiCAM, our gold level partners can educate you on our entire product line, and work with you in creating a solution to best fit your needs. With their in-depth product knowledge of our product line, Gold Partners can instruct you on which model to purchase, discussing capabilities about each model based on your specific requirements. A factory technician will install your machine. Your Gold Partner will be your first line of support as well as our factory helping you with remote internet service and telephone support.

Silver Partners Are professionals in related machinery or software industries who work with FlexiCAM and yourself in providing a package of software and machinery that will best suit your requirements. As with all our equipment, you will have access to our world-wide support network.

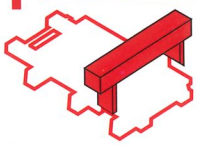


Creating Your Cutting Solution

5 Easy Steps

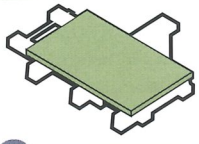


1 Step 1. Selecting Series and Model



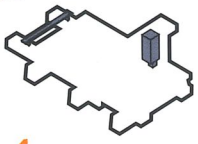
First, determine which series of FlexiCAM machines best suits your application. Next determine what working area is required and the desired model size.

2 Step 2. Selecting Tabletop and Hold down



Select from a phenolic or aluminum table top and the method of hold down. Either vacuum or mechanical or both systems available.

3 Step 3. Selecting Spindle

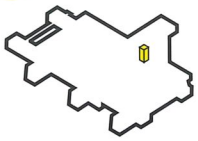


The spindle selected will be based on the type of material that is primarily used and the desired finish needed. Fully automatic tool changing systems are very efficient for multiple tools.

4 Step 4. Selecting Control System

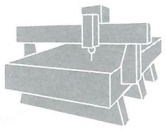
Select either a Standard Servo or ACS as your control system.

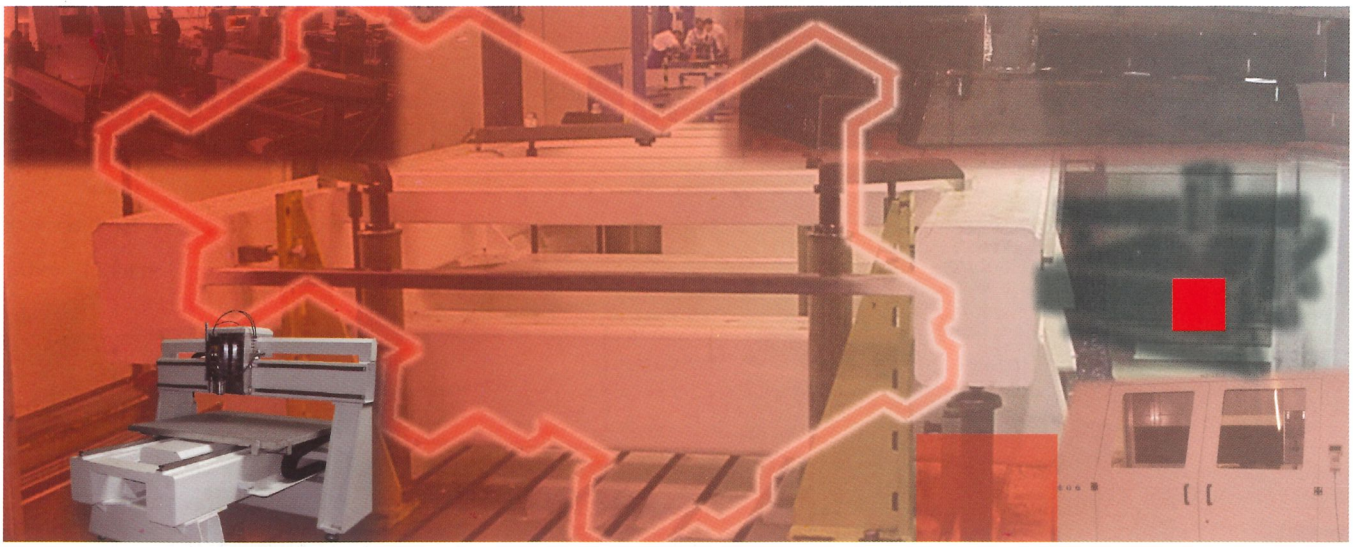
5 Step 5. Selecting Options



Accessorize the router to allow for ultimate versatility. For example, adding Aggregates allows for much more capabilities and efficiency.

S2	Work horse router, high accelerations, low amount of inertia mismatch, ideal for high speed spindles
Stealth	Designed for versatility, good for wood, plastics, and metals, many options available
PRO NBM	Nested based manufacturing, designed for cabinet manufacturers
XL	Great for heavy cutting, high clearance applications and multiple spindle configurations
XXL	Large format router for grand scale manufacturing
Viper	Fixed gantry moving table, excellent for micro machining, mold making, high precision work
COBRA	Heavy duty fixed gantry, moving table machine





Step 1. Selecting Series and Model

What is FlexiCAM CNC equipment mainly used for?

The machines are designed to process large-format sheet material especially for: Woodworking, Aerospace, Signmaking, Neon Fabrication, Plastic and Acrylic Processing, Cabinetry and Counter Tops, Engraving, Exhibit Design, Moldmaking, Vacuum Forming Industry. Besides the above 'standard' applications there are many FlexiCAM systems installed for specialized applications like shape cutting of CDs, working with aluminum and plastic profiles and many more... All our tables are fully steel constructed systems, not just the base frame of the table, like with many machines in the market.

Which FlexiCAM machines are 3D capable?

All FlexiCAM systems are standard with 3-Dimensional cutting capabilities, after market 3D CAM software will deliver the 3D design and toolpathing capabilities.

What table bed size is recommended?

If there is enough space available, select your table according to the material you plan to work with most.
For example:

- Signmakers or neon companies who mainly work with aluminum, acrylic as well as PVC would probably select either a Stealth 2030.

If you plan to only process aluminum, you can use the Stealth 1530 or 1525, depending on the sheet size you plan to use.

- Engravers process small and medium aluminum sheets, sized 4'x8' or 40"x78" would consider the S2 1525.

If there is limited space available and only occasional work with full-sized sheets required, the FlexiCAM Stealth (for sheet sizes 6'x10') or the Stealth (for sheet size 5'x10') are the ideal machines to eliminate the process of cutting sheets in multiple passes or tiling.

Why use planetary gear boxes powered with AC Servo systems instead of timing belts?

Timing belt systems may be appropriate for low cost Stepper systems. Due to the low speed (max. 2000 rpm) Stepper motors only need small gear ratios (usually 3:1 to 5:1). Tuning is not necessary with Stepper motors. Servo motors are available with motor speeds up to 6,000 rpm or higher. They also provide a much higher dynamic response, and work best with high precision planetary gear boxes with larger gear ratios (10:1 up to 50:1). Planetary gear boxes are ideal because of their high efficiency (98%), their rigidity as well as their high torque. They are significantly more expensive compared to timing belt solutions. FlexiCAM uses high precision planetary gear boxes on all rack and pinion systems which are powered by AC Servo motors.

Ball Screw or Rack & Pinion Drive systems?

Depends on the application

Ball Screw systems: Very precise, rigid and free of backlash. For short distances (z axis, small machines, especially engravers) they are an excellent choice. Disadvantages: Ball screw systems are comparably slow, especially with the large systems there is a problem with the critical speed, at a high rotation speeds the screw begins to vibrate (resonance). The longer and thinner the screw, the slower the critical speed. With **big** systems the **b**all screw is not a good solution because it sags heavily and must be supported by a special constructed frame. As an alternative, screws with a large diameter and a high pitch can be used, however these are very expensive and require much larger motors. The FlexiCAM Viper II, **and** Cobra use ball screws on the **X, Y and Z** axis as a standard.

Rack and Pinion Advantages: Movements over long distances can be achieved more easily and cost effectively by racks than by ball screws. Racks allow for higher speeds. The amount of error in Rack & Pinion is normally less than +/- .002" which is about a 1/4 the thickness of a hair. Most large format FlexiCAM systems (larger than 4'x8' or 1.5m x 2.5m) use rack and pinion on x and y axis.

S2

Applications include: Aluminum Composite Material, High Production Panel Processing, Acrylic fabrication, Sign making

The S2 is an exceptional value for the money, offering rigid steel construction throughout, our industry leading controls, AC Servo Motors, and planetary gear boxes. The S2 is designed so that you don't need to use 2 manual spindles, or a single drill, as the system is designed with a reliable, proven toolchanger allowing for more flexibility. This system is great for a medium to heavy use environment, be it in the woodworking or industrial markets or configured with options such as the OCS system for high speed sign making. The S2 is designed to accommodate all popular sheet sizes, so no matter what industry you are in you are able to get a machine that fits your market, without needing to spend more money for a machine that it designed for a different industry. This series of machines also comes standard with a 7.5hp manual spindle, which can be upgraded to an 11hp Automatic Toolchange Model. Contact one of our local offices to discuss configurations that are available specifically for your industry.

The S2 is offered in 7 models and sizes:

Model:	1326	1515	1527	1530	1540	2030	2040
Size:	50" x 100" 1270 x 2540mm	60" x 60" 1524 x 1524mm	60" x 100" 1524 x 2540mm	60" x 120" 1524 x 3050mm	60" x 161" 1524 x 4080mm	80" x 121" 2040 x 3080mm	80" x 161" 2040 x 4080mm
Part #:	P/N 80-25-1326	P/N 80-25-1515	P/N 80-25-1527	P/N 80-25-1530	P/N 80-25-1540	P/N 80-25-2030	P/N 80-25-2040

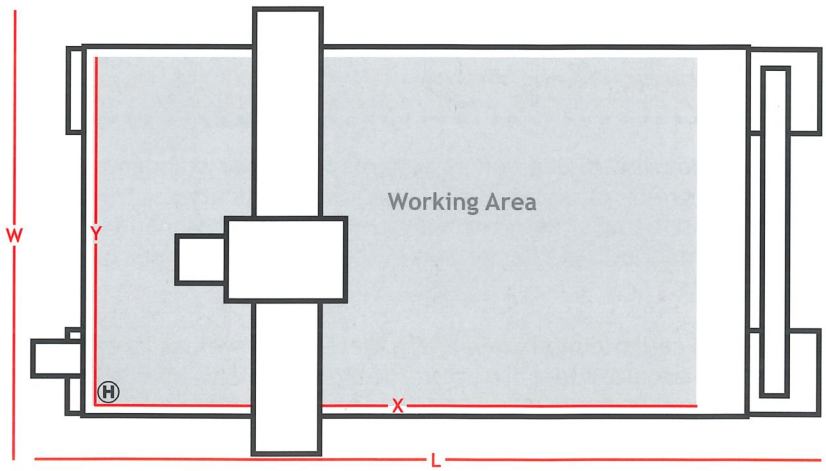
Dimensions for the S2

	Model Number	1326	1515	1527	1530	1540	2030	2040
Y	Process Area Width	50”	60”	60”	60”	60”	80”	80”
X	Process Area Length	100”	60”	100”	120”	161”	121”	161”
W	Overall Width	70”	80”	80”	80”	80”	100”	100”
L	Overall Length	130”	90”	130”	150”	191”	151”	191”
	Height	60”	60”	60”	60”	60”	60”	60”
	Weight	3500lbs	3300lbs	4400lbs	5500lbs	6100lbs	6600lbs	7700lbs

	Model Number	1326	1515	1527	1530	1540	2030	2040
Y	Process Area Width	1270mm	1524mm	1524mm	1524mm	1524mm	2040mm	2040mm
X	Process Area Length	2540mm	1524mm	2540mm	3050mm	4080mm	3080mm	4080mm
W	Overall Width	1778mm	2032mm	2032mm	2032mm	2032mm	2548mm	2548mm
L	Overall Length	3302mm	2286mm	3302mm	3812mm	4842mm	3842mm	4842mm
	Height	1524mm	1524mm	1524mm	1524mm	1524mm	1524mm	1524mm
	Weight	1590kg	1500kg	2000kg	2500kg	2773kg	3000kg	3500kg

Please Note: All sizes and weights are the approximate standard and are subject to change depending on which options are added.

S2



Specifications

Z-Axis Travel:	9”, 229mm
Z-Axis Clearance:	8”, 204mm
Max Cutting Speed:	XY 1000 ipm, 423mm/s
Max Rapid Traverse:	XY 1200 ipm, 508mm/s
Resolution X/Y:	0.0004”, 0.01mm
Resolution Z:	0.0004”, 0.01mm
Repeatability:	+/- 0.002”, +/- 0.05mm

Standard Features

- 3D computerized routing system
- AC Servo motors with high precision planetary gear boxes
- Preloaded backlash-free ballscrew on Z axis
- Aluminum T-slot profile or phenolic (1"/ 25 mm thickness) worksurface
- HPGL & GCode compatible
- Network connection via TCP/IP, 10Base2 or 10BaseT
- Remote Administration via Internet (TCP/IP)
- 12 month warranty
- 7.5hp/ 5.6 Kw Spindle 24,000rpm max Tool Diameter 5/8” 16mm
- Dust Collector attachment for manual tool change systems

Stealth 2007

Applications include: Non-ferrous Metal Sheet Processing, Melamine, Particle board, Plastic Sheet Processing, Cabinet Makers, Solid Surface, Electric Sign Companies, Packaging, Large 3D Models

The Stealth is designed for high production shops, and comes equipped with our standard powerful AC Servo drive system. These machines are great for all types of demanding applications such as solid surfaces, molds, machining metal, and cutting plastic parts. With these machines being designed for production type environments, there is a large range of manual tool change and automatic tool change spindles available to address specific application requirements.

With 8 inches of clearance the Stealth is capable of cutting sheet material as well as large 3D objects such as molds, dimensional signage, and architectural fixtures. The Stealth is also available in a high clearance option for industries such as packaging and 3D model making. The Stealth series is ideal for users who in particular want to process slabs from acrylic, PVC, aluminum or other non-ferrous metals, wood, composites etc. The Stealth base frame is welded as one solid unit, using the proven Tube on Tube design which has been popular in the aerospace business since the inception of CNC routers in the 1970's. The work table is specifically designed for demanding applications, with the heavy construction aiding in counteracting vibration created from cutting forces. The work table is specially designed for heavy duty processing and allows vibration-free operation. The base construction of the Stealth is very heavy and cannot be taken apart. The Stealth is welded into one solid base unit made from heavy steel tubes, stress relieved and machined.

The Stealth can be fitted with almost all options available from FlexiCAM including Rotary Axis, ACS, OCS, Auto Lubrication, and the list goes on and on. Contact one of our offices to discuss the configuration that will work best for your requirements.

The Stealth is offered in 11 models and sizes:

Model:	1515	1525	1530	1540	1550	2030	2040	2060	2530	2540	2560
Size:	61" x 61" 1550 x 1550mm	61" x 104" 1550 x 2640mm	61" x 121" 1550 x 3070mm	61" x 161" 1550 x 4090mm	61" x 197" 1550 x 5000mm	80" x 121" 2030 x 3070mm	80" x 161" 2030 x 4090mm	80" x 242" 2030 x 6140mm	100" x 121" 2540 x 3070mm	100" x 161" 2540 x 4090mm	100" x 2 2540 x 614
Part #:	P/N 80-05-1515	P/N 80-05-1525	P/N 80-05-1530	P/N 80-05-1540	P/N 80-05-1550	P/N 80-05-2030	P/N 80-05-2040	P/N 80-05-2060	P/N 80-05-2530	P/N 80-05-2540	P/N 80-05-2

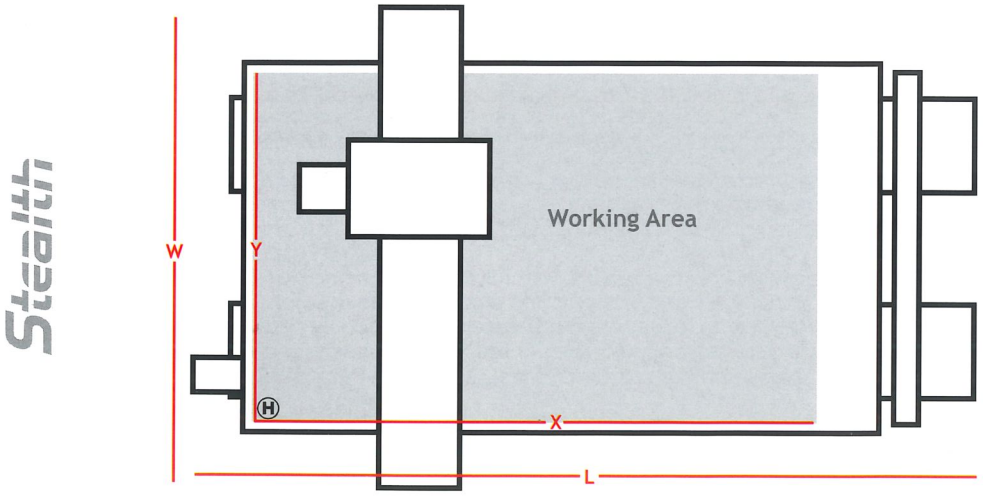
Stealth

Dimensions for the Stealth

Model Number	1515	1525	1530	1540	1550	2030	2040	2060	2530	2540	2560
Y Process Area Width	61”	61”	61”	61”	61”	80”	80”	80”	100”	100”	100”
X Process Area Length	61”	102”	121”	161”	197”	121”	144”	166”	121”	161”	242”
W Overall Width	69”	69”	69”	69”	69”	94”	94”	94”	112”	112”	112”
L Overall Length	92”	125”	145”	185”	227”	145”	168”	190”	190”	185”	264”
Height	65”	65”	65”	65”	59”	65”	65”	65”	65”	65”	65”
Weight	3500lbs	4600lbs	5700lbs	6000lbs	8400lbs	7100lbs	8300lbs	9200lbs	10800lbs	12100lbs	14800lbs

Model Number	1515	1525	1530	1540	1550	2030	2040	2060	2530	2540	2560
Y Process Area Width	1550mm	1550mm	1550mm	1550mm	1550mm	2032mm	2032mm	2540mm	2540mm	2540mm	2540mm
X Process Area Length	1550mm	2591mm	3074mm	4090mm	5004mm	3074mm	3658mm	3658mm	3074mm	4090mm	6147mm
W Overall Width	1753mm	1753mm	1753mm	1753mm	1753mm	2388mm	2388mm	2388mm	2845mm	2845mm	2845mm
L Overall Length	2337mm	3175mm	3683mm	4699mm	5766mm	3683mm	4268mm	4268mm	4826mm	4699mm	6706mm
Height	1651mm	1651mm	1651mm	1651mm	1651mm	1651mm	1651mm	1651mm	1651mm	1651mm	1651mm
Weight	1591kg	2091kg	2590kg	2727kg	3818kg	3227kg	3473kg	4181kg	4909kg	5500kg	6727kg

Please Note: All sizes and weights are the approximate standard and are subject to change depending on which options are added.



Specifications

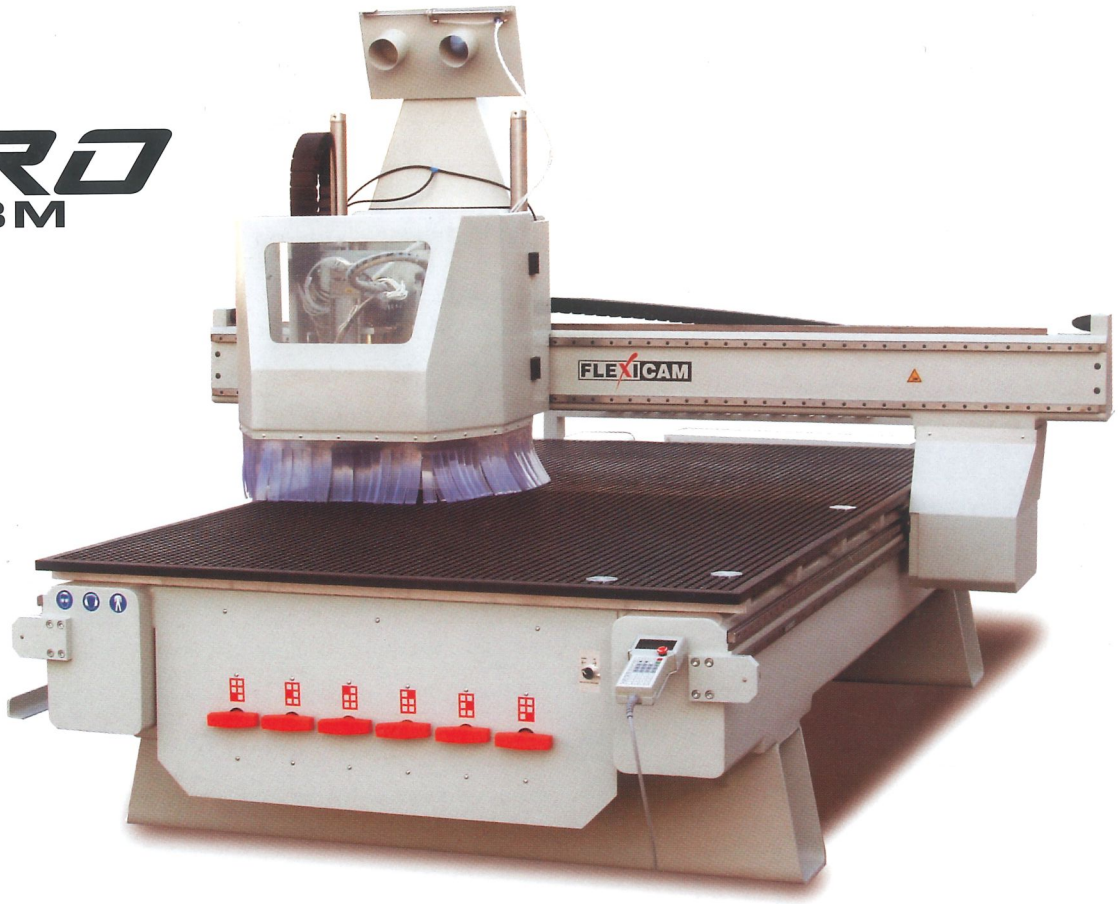
Z-Axis Travel:	9.5”, 240mm
Z-Axis Clearance:	8”, 200mm
Max Cutting Speed*:	XY 1200 ipm, 508 mm/s
Max Rapid Traverse*:	XY 2360 ipm, 1000 mm/s
Resolution X/Y:	0.00004”, 0.001mm
Resolution Z:	0.000016”, 0.0004mm
Repeatability:	+/- 0.002”, +/- 0.05mm

* For maximum speed additional safety devices may be required.
Speeds can vary based upon machine configuration.

Standard Features

- 3D computerized routing system
- AC Servo motors with high precision planetary gear boxes
- Preloaded backlash-free ballscrew on Z axis
- Aluminum T-slot profile or phenolic (1"/ 25 mm thick) work surface
- Gcode & HPGL languages supported
- Network connection via TCP/IP, 10Base2 or 10BaseT
- Remote Administration via Internet (TCP/IP)
- 12 month warranty

PRO NBM



Applications include: Kitchen Manufacturers, Closet Manufacturers, MDF Door Manufacturers, Commercial Fixture Manufacturers

The Pro NBM is designed for Wood Shops requiring an affordable CNC system, without compromising on quality and performance. NBM systems have all of the features needed for high productivity, without the extra options that are never used, that add thousands onto the selling price of the equipment.

Operators will love the ease of use, and intuitive navigation of the Servo Control System. Online help at the controllers keypad, aids in showing the operator current configuration parameters and settings, and prompting the user for any settings that haven't been configured properly, insuring trouble free operation. Our open based file system is compatible with all popular CAD and Cabinet Automation Systems. Our team can integrate your existing software, or sell you a complete cutting edge Cabinet/Closet /Countertop software and router solution that works as a turnkey solution for you, at a very affordable price.

Designed for 4'x8' 5'x8' 5'x10' and 5'x12' sheets. As well as being able to hanlde one sheet at a time The 1560 and 1580 Machines can be configured for 2 sheet, front/back operation, allowing reduced cycle time and better use of labor. Heavy steel construction, large linear bearings, high pressure vacuum table top, pop-up pins for quick sheet change over, ethernet connection, Internet support and Internet maintenance. High speed toolchangers with up to 18 tool positions available. The high speed drill bank allows for up to 9 holes drilled simultaneously, 5 holes oriented in the X-axis, 5 holes oriented in the Y axis. Drill banks are also available with up to 20 drills and can be setup in a custom drill pattern.

All machines include training for CNC operation, CNC Cutting Methods and Techniques, Router Bit Education, and Software Training. A Bar code reader is included for accuracy of job loading, reducing material waste, and operator error. The Pro NBM is not limited to top down machining of flat sheet stock. Setup for pods for edge drilling, fixtured setups, 3D carving, part profiling, and aggregates are all available as options that can be installed onto your NBM. The NBM is at home as much with hardwood and softwood as it is with plywood and laminate materials.

A lot of routers look alike, but they aren't all built alike. Make sure that you look for the FlexiCAM name to insure quality, reliability and backup service and support, to make your purchase pain and regret free.

The Pro NBM Systems are offered in 7 sizes:

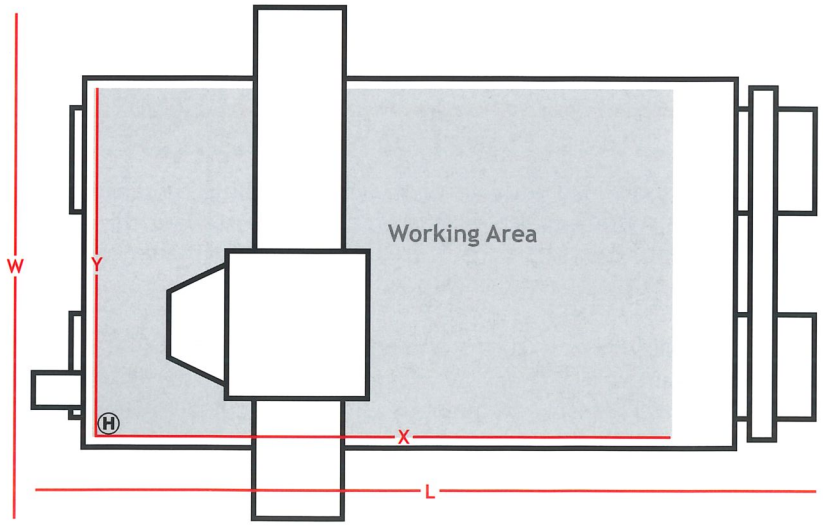
Model:	1525	1530	1540	1560	1580	2030	2040
Size:	61" x 104" 1550 x 2580mm	61" x 121" 1550 x 3080mm	61" x 161" 1550 x 4080mm	61" x 240" 1550 x 6096mm	61" x 318" 1550 x 8078mm	80" x 121" 2040 x 3080mm	80" x 161" 2040 x 4080mm
Part #:	P/N 86-06-1525	P/N 86-06-1530	P/N 86-06-1540	P/N 86-06-1560	P/N 86-06-1580	P/N 86-06-2030	P/N 86-06-2040

Dimensions for the Pro NBM

Model Number	1525	1530	1540	1560	1580	2030	2040
Y Process Area Width	61"	61"	61"	61"	61"	80"	80"
X Process Area Length	104"	121"	161"	240"	318"	121"	161"
W Overall Width	102"	102"	102"	102"	102"	122"	122"
L Overall Length	134"	151"	191"	270"	348"	151"	191"
Height	65"	65"	65"	65"	65"	65"	65"
Weight	5400lbs	6200lbs	6800lbs	10500lbs	13500lbs	9000lbs	9500lbs

Model Number	1525	1530	1540	1560	1580	2030	2040
Y Process Area Width	1550mm	1550mm	1550mm	1550mm	1550mm	2032mm	2032mm
X Process Area Length	2642mm	3074mm	4090mm	6096mm	8078mm	3074mm	4090mm
W Overall Width	2591mm	2591mm	2591mm	2591mm	2591mm	3099mm	3099mm
L Overall Length	3404mm	3836mm	4852mm	6858mm	8840mm	3836mm	4852mm
Height	1651mm	1651mm	1651mm	1651mm	1651mm	1651mm	1651mm
Weight	2455kg	2818kg	3091kg	4763kg	6124kg	4091kg	4318kg

Please Note: All sizes and weights are the approximate standard and are subject to change depending on which options are added.



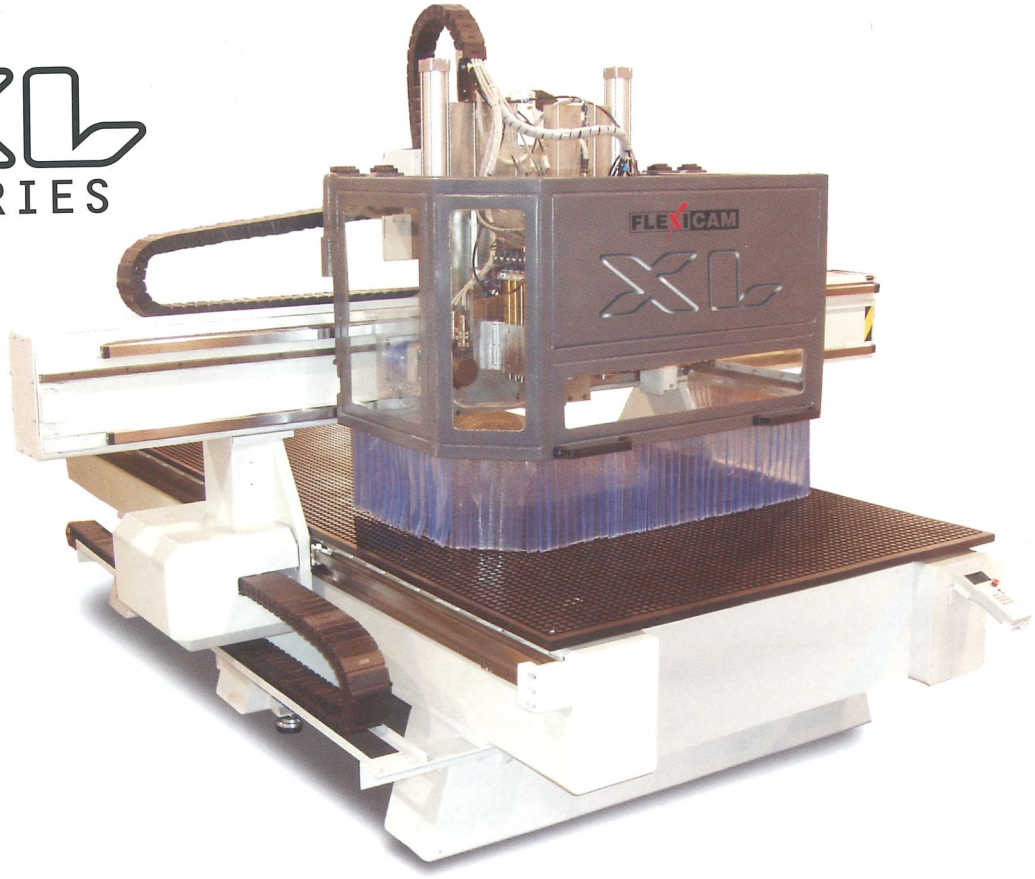
Standard Features on the Pro Nested Base Manufacturing systems:

- Spindle 8 KW (11 hp), 24000 RPM 12 position tool changer (up to 20 depending on model)
- 9 position Drill Bank - 5 drills in the X-axis and 5 in the Y axis, allowing for high throughput
- Wide carriage with dual slides allowing for complete coverage of the spindle and the drill bank
- Extended Gantry for full table coverage of the bed with the boring block and the spindle
- Dust collector for automatic tool change spindle
- Rotary vane vacuum pump
- Phenolic surface table top
- Barcode Scanner for quick and easy loading of jobs

Productivity Options

- Pod Assembly for raised part processing
- Vacuum lift for loading material onto machine
- Air floatation table top for material handing
- Second vacuum pump or liquid ring pump for small part manufacturing
- Spindle upgrades to 20hp
- Pop-up pins for fast material positioning

XL SERIES



Applications include: Work Cell Manufacturing, Aerospace, Demanding Woodworking Applications

The main markets for the XL are customers working with; large diameter tooling, requiring aggregates for specialty machining, have high throughput requirements, or customers who just want the flexibility to be able to cut most everything. Designed with reliability at its core, the XL is built to fit individual customers specifications, through their choice of the 100's of options offered by FlexiCAM.

The phenolic table top is designed for flexibility in fixturing and zoning using a Multi-Platen Table Top. Table top plugs allow for you to customize vacuum zoning every few inches of work space, insuring maximum vacuum for each component on the table bed, creating faster throughput and better cut quality. The toolchanger is available with a linear sliding ride along toolchanger, which is a first in this class of machine. With this style toolchanger, performance and cycle times are unmatched by the competition. No short cuts where taken in the design of the high speed rotary toolchanger, as it is driven via a servo motor, insuring your tools are indexed correctly every time. Dust collection is available with up to a 10" connection at the machine to insure that you get maximum chip removal while cutting, reducing the sheet to sheet time by minimizing table top cleanup. A full gantry enclosure is also an option for this series of machine, insuring that dust stays contained on the table bad to be picked up by the chip collection.

The C-Axis, for rotating aggregate tools, is a highlight option on the XL series, as well as the addition of Specialty Cutting Groups for a high level of manufacturing flexibility. If you have a specific tool that you would like added onto the machine for your application, this can also be accommodated.

The XL Series is offered in 10 models and sizes:

Model:	1525	1530	1540	1550	2030	2040	2060	2530	2540	2560
Size:	60" x 104" 1550 x 2640mm	60" x 121" 1550 x 3070mm	60" x 161" 1550 x 4090mm	60" x 197" 1550 x 5000mm	84" x 121" 2030 x 3070mm	84" x 161" 2030 x 4090mm	84" x 242" 2030 x 6140mm	96" x 121" 2540 x 3070mm	96" x 161" 2540 x 4090mm	96" x 242" 2540 x 6140mm
Part #:	P/N 83-06-1525	P/N 83-06-1530	P/N 83-06-1540	P/N 83-06-1550	P/N 83-06-2030	P/N 83-06-2040	P/N 83-06-2060	P/N 83-06-2530	P/N 83-06-2540	P/N 83-06-2560

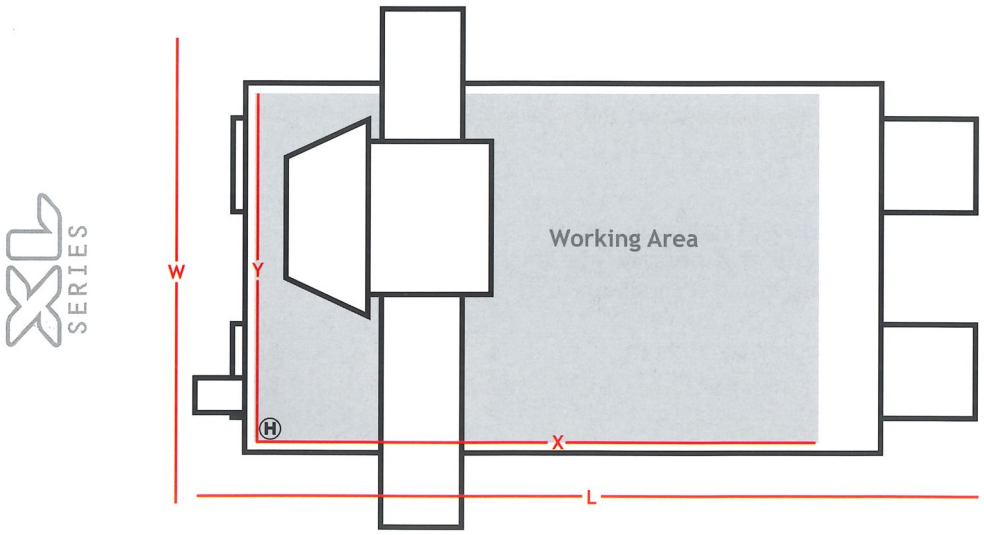
Dimensions for the XL Series

	Model Number	1525	1530	1540	1550	2030	2040	2060	2530	2540	2560
Y	Process Area Width	60”	60”	60”	60”	84”	84”	84”	96”	96”	96”
X	Process Area Length	104”	121”	161”	197”	121”	161”	242”	121”	161”	242”
W	Overall Width	105”	105”	105”	105”	129”	129”	129”	141”	141”	141”
L	Overall Length	134”	151”	191”	227”	151”	191”	272”	151”	191”	272”
	Height	80”	80”	80”	80”	80”	80”	80”	80”	80”	80”
	Weight	8100lbs	9300lbs	10200lbs	12600lbs	13500lbs	14250lbs	16200lbs	14700lbs	19800lbs	29700lbs

Please Note: All sizes and weights are the approximate standard and are subject to change depending on which options are added.

	Model Number	1525	1530	1540	1550	2030	2040	2060	2530	2540	2560
Y	Process Area Width	1524mm	1524mm	1524mm	1524mm	2134mm	2134mm	2134mm	2439mm	2439mm	2439mm
X	Process Area Length	2642mm	3074mm	4090mm	5004mm	3074mm	4090mm	6147mm	3074mm	4090mm	6147mm
W	Overall Width	2667mm	2667mm	2667mm	2667mm	3277mm	3277mm	3277mm	3582mm	3582mm	3582mm
L	Overall Length	3404mm	3836mm	4852mm	5766mm	3836mm	4852mm	6909mm	3836mm	4852mm	6909mm
	Height	2032mm	2032mm	2032mm	2032mm	2032mm	2032mm	2032mm	2032mm	2032mm	2032mm
	Weight	3675kg	4219kg	4627kg	5715kg	6124kg	6464kg	7349kg	6668kg	8982kg	13472kg

Please Note: All sizes and weights are the approximate standard and are subject to change depending on which options are added.



Specifications

Z-Axis Travel:	11”, 280mm
Z-Axis Clearance:	8”, 200mm
Max Cutting Speed:	XY 2400 ipm,1016mm/s
Max Rapid Traverse*:	XY 3600 ipm, 1.5m/s
Resolution X/Y:	0.00004”, 0.001mm
Resolution Z:	0.000016”, 0.0004mm
Repeatability:	+/- 0.002”, +/- 0.05mm

* For maximum speed additional safety devices may be required.

Standard Features

- Up to 2 gantries
- Up to 8 tooling positions for any combination of spindles or boring units at each tool plate
- Available with up to an optional 35 positions for tool holders
- High Precision Rack and Pinion Drive on X and Y axis, designed to handle high accelerations & decelerations
- Ballscrew Drive on Z-Axis
- Extremely-High Speed Servo Drive systems

XXL

Applications include: Aerospace, Boat Manufacturers, R.V. Manufactures, Trailer Manufacturers, Mobile Home Builders, and Truck Manufacturers

This series of machines is designed for large panel processing, large format part cutting, production line manufacturing, and machining of large molds and patterns. With the option of multiple gantries you are able to exponentially increase your production, and at the same time create redundancy for daily maintenance and servicing, so that you always keep production going throughout 3 shift operations.

All machines are installed on site by the factory technicians.

Machines are available with:
-Standard bed lengths up to 55ft, contact FlexiCAM for larger sizes
-Available machine width 8ft - 10ft - 12ft / 2.5m - 3m - 3.5m
-Gantry clearances 8" 11" 15" 24" 36" / 200mm 280mm 380mm 610mm 915mm
-Up to 4 gantries
-Up to 8 tooling positions for any combination of spindles or boring units at each tool plate
-High Precision Rack and Pinion Drive on X and Y axis, designed to handle high accelerations & decelerations
-Ballscrew Drive on Z-Axis
Extremely-High Speed Servo Drive systems
-Available with redundant backup controls to ensure machine up time
-ACS or Standard Servo Control available
-Air Floatation Load Unload Systems
-Feedrates of 3600 IPM / 1.5m/sec

The XXL is offered in 3 models and various lengths:

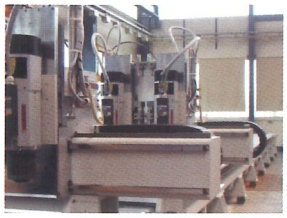
Model:	25xx/xx8	30xx/xx10	35xx/xx12
Size:	100" x XX" - Length on request 2540mm x XXmm	120" x XX" - Length on request 3040mm x XXmm	140" x XX" - Length on request 3540mm x XXmm
Part #:	P/N 80-06-2500	P/N 80-06-3000	P/N 80-06-3500

XXL Series

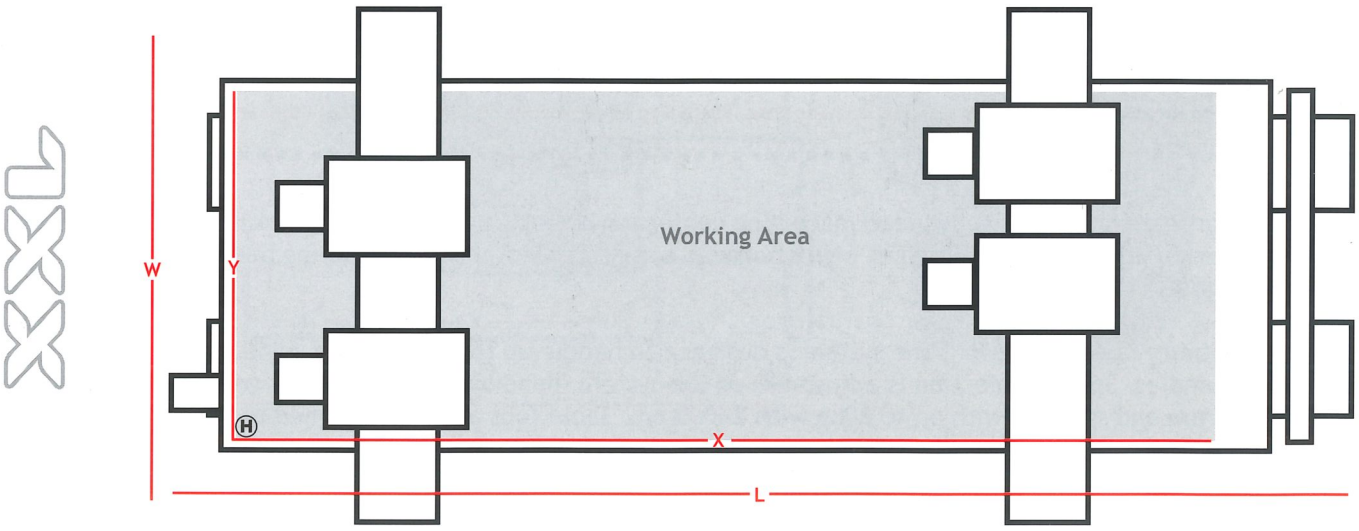
Dimensions for the XXL Series

	Model Number	25XX	30XX	35XX	25XX	30XX	35XX
Y	Process Area Width	100”	120”	140”	2450mm	3040mm	3540mm
X	Process Area Length	Custom	Custom	Custom	Custom	Custom	Custom
W	Overall Width	140”	160”	180”	2950mm	3540mm	4040mm
L	Overall Length	Custom	Custom	Custom	Custom	Custom	Custom
	Height	80”	80”	80”	80”	80”	80”
	Weight	10,000lbs+	12,000lbs+	14,000lbs+	4550kg+	5450kg+	6350kg+

Please Note: All sizes and weights are the approximate standard and are subject to change depending on which options are added.







Specifications

Z-Axis Travel:	11”, 280mm
Z-Axis Clearance:	11”, 280mm
Max Cutting Speed:	XY 2400 ipm, 1016mm/s
Max Rapid Traverse*:	XY 3600 ipm, 1.5m/s
Resolution X/Y:	0.00004”, 0.001mm
Resolution Z:	0.000016”, 0.0004mm
Repeatability:	+/- 0.002”, +/- 0.05mm

* For maximum speed additional safety devices may be required.

Standard Features

-Standard bed lengths up to 55ft, contact FlexiCAM for larger sizes
-Available machine width 8ft - 10ft - 12ft / 2.5m - 3m - 3.5m
-Up to 4 gantries
-Up to 8 tooling positions for any combination of spindles or boring units at each tool plate
- Available with up to an optional 35 positions for tool holders
-High Precision Rack and Pinion Drive on X and Y axis, designed to handle high accelerations & decelerations
-Ballscrew Drive on Z-Axis
Extremely-High Speed Servo Drive systems
-Air Floatation Load Unload Systems

Viper

Applications include: High Speed Machining, Micro-tooling, Micro Machining, Milling, Drilling, Thread Milling, Engraving

The Viper is designed as a high speed machining center for 2D and 3D parts. The system is designed with the characteristics of high accelerations, high accuracy, a very stiff system with a moving bed design, and flexibility in configuration of options.

For flexibility in configuration, the system is designed to handle up to 4 high speed spindles or 2 standard speed spindles. Spindle selection is adjustable on the system, handling low hp spindles with speeds of up to 100,000rpm and spindles with up to 20hp with 24000rpm. Table tops are also designed to be flexible with steel fixturing table top, aluminum T-Slot, or either a phenolic or aluminum vacuum table designed for vacuum fixturing parts.

This system is the perfect machine for rapid prototyping customers, with the benefit of being able to be operate in both an office setting or a machine shop setting. It can achieve this as it can be configured for a completely sealed system, recycling coolant system, small footprint, and low noise from operation. The Viper Series is well suited for micro tooling applications, where tooling with less than 6mm in diameter is required.

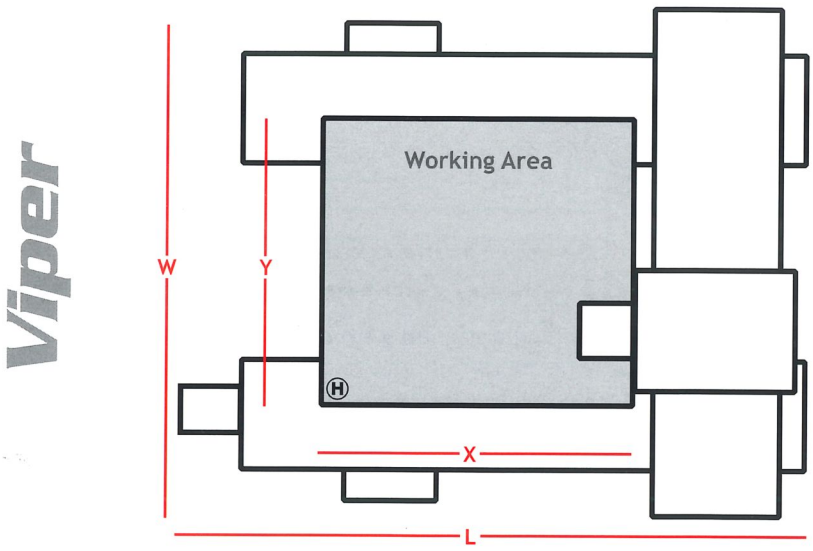
The Viper is offered in 4 models and sizes:

Model:	606	1209	1212	1225
Size:	25" x 25" 650 x 650mm	37" x 50" 950 x 1270mm	50" x 50" 1270 x 1270mm	100" x 50" 2540 X 1270mm
Part #:	P/N 80-08-0606	P/N 80-08-1209	P/N 80-08-1212	P/N 80-08-1225

Dimensions for the Viper

	Model Number	606	1209	1212	1225
Y	Process Area Width	25" 650mm	37" 950mm	50" 1270mm	50" 1270mm
X	Process Area Length	25" 650mm	50" 1270mm	50" 1270mm	100" 2540mm
W	Overall Width	57" 1448mm	71" 1804mm	71" 1804mm	71" 1804mm
L	Overall Length	56" 1423mm	108" 2744mm	112" 2845mm	212" 5384mm
	Height	74" 1880mm	74" 1880mm	74" 1880mm	74" 1880mm
	Weight	1750lbs 795kg	2550lbs 1160kg	3250lbs 1477kg	6250lbs 2840kg

Please Note: All sizes and weights are the approximate standard and are subject to change depending on which options are added.



Specifications

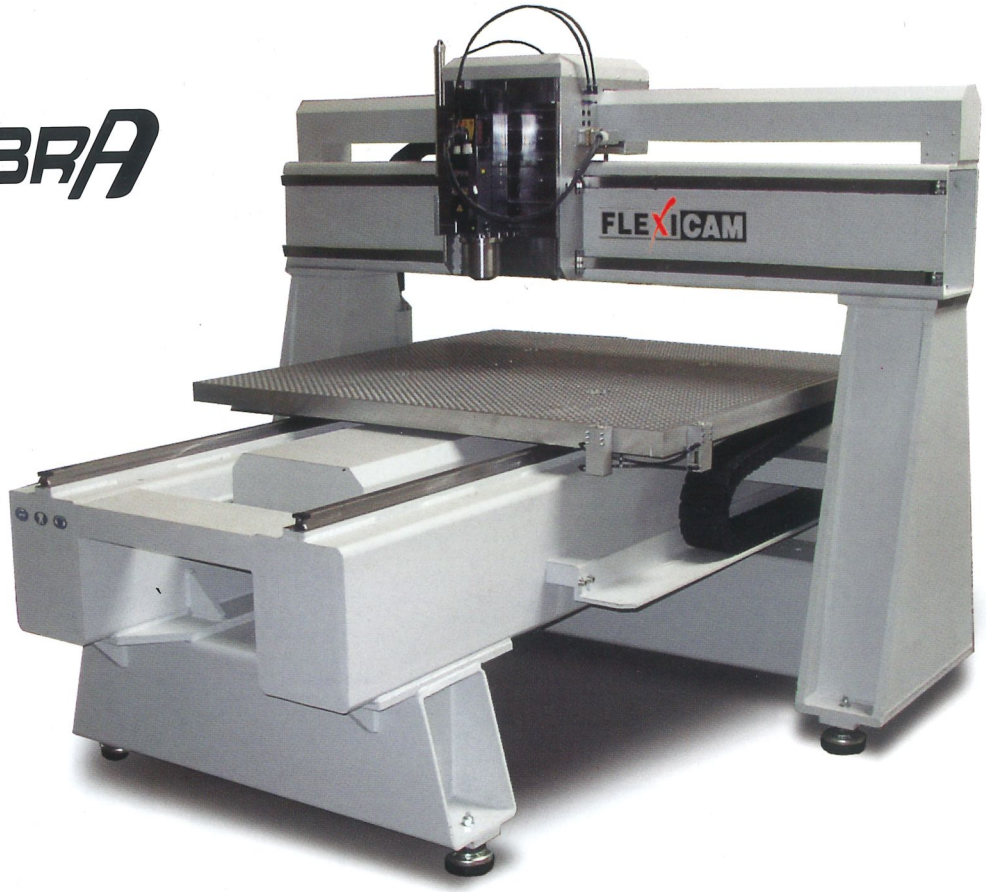
Z-Axis Travel:	11", 280mm
Z-Axis Clearance:	11", 280mm
Max Cutting Speed:	XY 1370 ipm, 580 mm/s Servo*
Max Rapid Traverse:	XY 1370 ipm, 580 mm/s Servo*
Resolution X/Y:	0.00004", 0.001mm
Resolution Z:	0.000016", 0.0004mm
Repeatability:	+/- 0.002", +/- 0.05mm

*Depending on machine configuration

Standard Features

- AC Servo motors
- Preloaded backlash-free ballscrews (X, Y and Z axis)
- High precision aluminum worktable, 1 1/4" / 30 mm thickness
- T-slot 1/4" or 6mm, matrix 2" or 50mm
- Covers on X axis, bellow on Y axis for linear rails and ballscrew
- HPGL & GCode compatible
- Network connection via TCP/IP, 10Base2 or 10BaseT
- Remote administration via Internet (TCP/IP)
- 12 month warranty

COBRA



Applications include: Solid Wood Furniture Manufacturing, High Speed Mold Making, High Production Panel Processing, Plastic Parts Fabrication

The Cobra is the big brother to the Viper Series, both series being designed with moving beds and stationary gantries. With this style of system, the bed that the material is mounted onto is driven forwards and backwards to create travel on the X-Axis. The Y-Axis is built with an extra wide carriage to ensure a very stiff mounting position for the spindle to be attached to. The carriage is driven in the X/Y-Axis at very high rates of speed, along the 35mm linear rails. Each axis is driven by high precision ground ballscrews enabling smooth motion, and great precision.

The Cobra is available with either the Standard Servo System or the ACS, both true closed loop servo controllers. These drive systems coupled with the very stiff mechanical design, create a unit that is not only extremely rigid, but also highly accurate, perfect for applications requiring the best edge quality available at incredibly fast cutting speeds of up to 3100ipm. Typical applications for this series of machine are those requiring short cycle times such as customers cutting parts from sheets, be it cabinet door manufacturers, nested cutting applications, plastic fabricators, or machine shop part manufacturing.

The Cobra is offered in 11 models and sizes:

Model:	1515	2015	2515	3015	1525	1530	1537	3015 TT	3025 TT	3030 TT	3037 TT
Size:	60" x 60" 1540 x 1540mm	60" x 81" 1540 x 2060mm	60" x 96" 1540 x 2440mm	60" x 120" 1540 x 3080mm	96" x 60" 2440 x 1540mm	120" x 60" 3050 x 1540mm	144" x 125" 3660 x 3090mm	60" x 60" 1540 x 1540mm	60" x 96" 1540 x 2440mm	60" x 120" 1540 x 3050mm	60" x 144" 1540 x 3660
Part #:	P/N 80-07-1515	P/N 80-07-2015	P/N 80-07-2515	P/N 80-07-3015	P/N 80-07-1525	P/N 80-07-1530	P/N 80-07-1537	P/N 80-08-3015	P/N 80-08-3025	P/N 80-08-3030	P/N 80-08-30

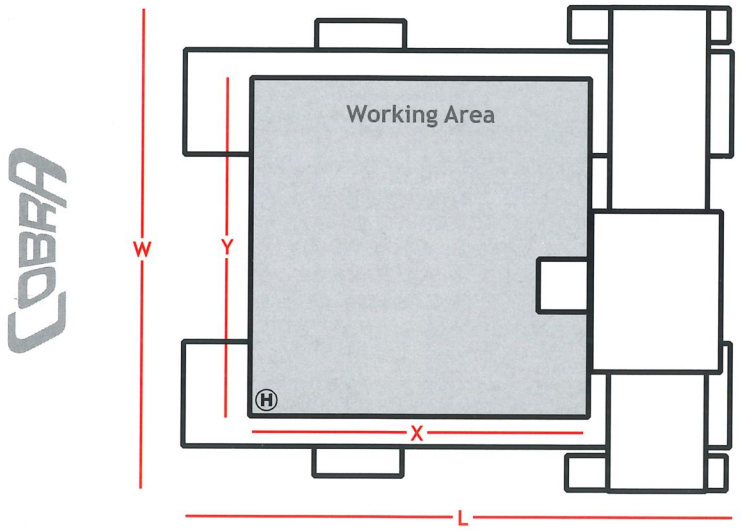
TT = Twin Tab

Dimensions for the Cobra

Model Number	1515	2015	2515	3015	1525	1530	1537	3015TT	3025TT	3030TT	3037TT
Y Process Area Width	60”	81”	96”	120”	60”	60”	60”	60”	60”	60”	60”
X Process Area Length	60”	60”	60”	60”	96”	120”	144”	60”	96”	120”	144”
W Overall Width	108”	129”	144”	168”	108”	108”	108”	216”	216”	216”	216”
L Overall Length	130”	130”	130”	130”	204”	256”	300”	130”	204”	256”	300”
Height	72”	72”	72”	72”	72”	72”	72”	72”	72”	72”	72”
Weight	5400lbs	6800lbs	7200lbs	8800lbs	7200lbs	8800lbs	9900lbs	11000lbs	16000lbs	18200lbs	19800lbs

Model Number	1515	2015	2515	3015	1525	1530	1537	3015TT	3025TT	3030TT	3037TT
Y Process Area Width	1540mm	2060mm	2440mm	3050mm	1540mm	1540mm	1540mm	1540mm	1540mm	1540mm	1540mm
X Process Area Length	1540mm	1540mm	1540mm	1540mm	2440mm	2440mm	3660mm	1540mm	2440mm	3050mm	3660mm
W Overall Width	2743mm	3277mm	3658mm	4267mm	2743mm	2743mm	2733mm	4386mm	3748mm	4276mm	3748mm
L Overall Length	3302mm	3302mm	3302mm	3302mm	5182mm	5182mm	7620mm	3302mm	5182mm	5182mm	7620mm
Height	1829mm	1829mm	1829mm	1829mm	1829mm	1829mm	1829mm	1829mm	1829mm	1829mm	1829mm
Weight	2455kg	3091kg	3273kg	4000kg	3273kg	4000kg	4500kg	5000kg	7272kg	8272kg	9000kg

Please Note: All sizes and weights are the approximate standard and are subject to change depending on which options are added.



Specifications

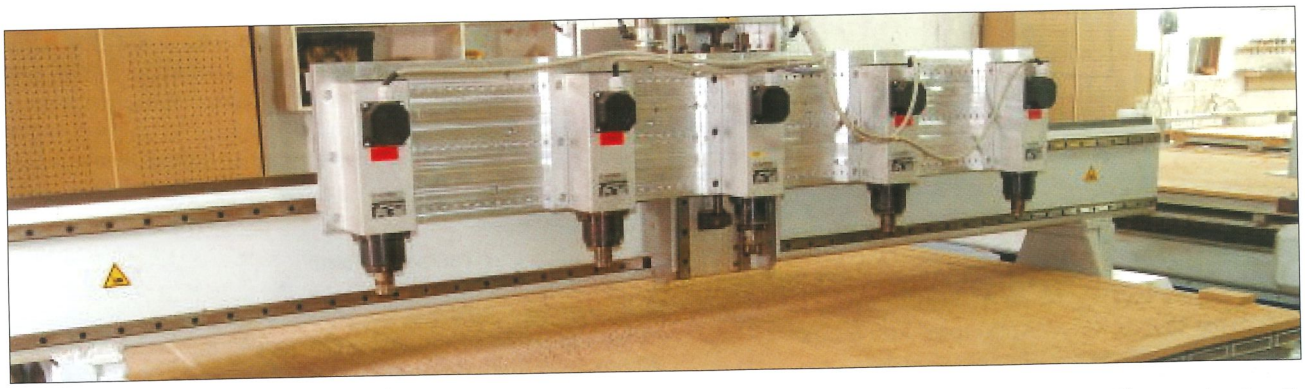
Z-Axis Travel:	11”, 280mm
Z-Axis Clearance:	11”, 280mm
Max Cutting Speed:	XY 1650 ipm, 700 mm/s
Max Rapid Traverse*:	XY 3190 ipm, 1350 mm/s
Resolution X/Y:	0.00004”, 0.001mm
Resolution Z:	0.000016”, 0.0004mm
Repeatability:	+/- 0.002”, +/- 0.05mm

Standard Features

- 3D computerized routing system
- AC Servo motors
- Preloaded backlash-free ballscrew on all axis
- 35 mm linear bearings on X and Y axis
- 40 mm fixed high pitch ballscrew*
- Solid, stress relieved and machined aluminum work surface (40 mm thickness)
- GCode compatible
- Network connection via TCP/IP, 10Base2 or 10BaseT
- Remote Administration via Internet (TCP/IP)
- 12 month warranty

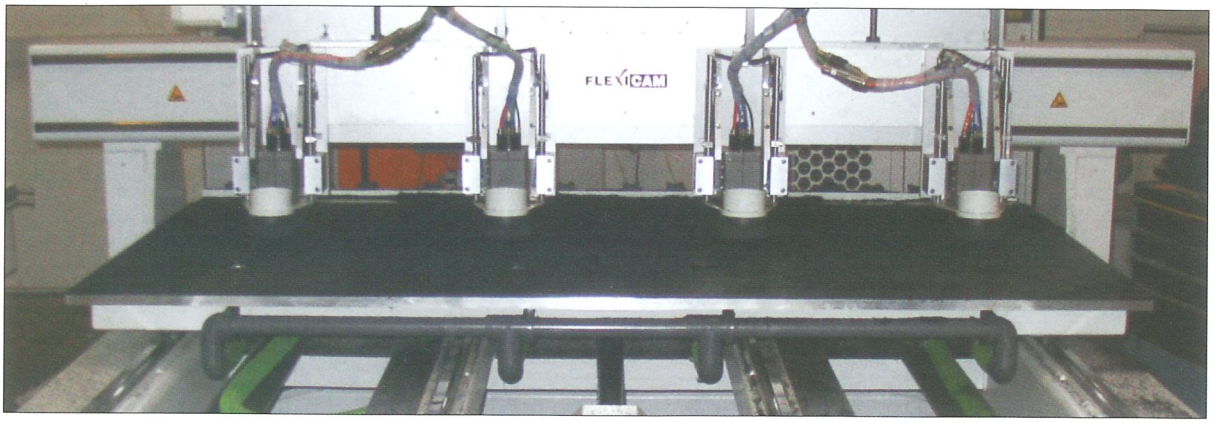
Custom Machines

At FlexiCAM we understand that not all customers' applications are going to be able to use a standard machine. Because of this we will work closely with you to find a solution for your specific needs. Be it a custom control, so that you are able to work with your existing equipment without retraining your operator, or a custom piece of equipment that you need mounted onto a gantry positioning system, we have the background, experience, and expertise to create a solution that is going to get your job done. If you have an operation where you only want to have the operator load the machine and press the GO/STOP button, we can configure the interface so that the operator can do nothing to erroneously configure the machine.



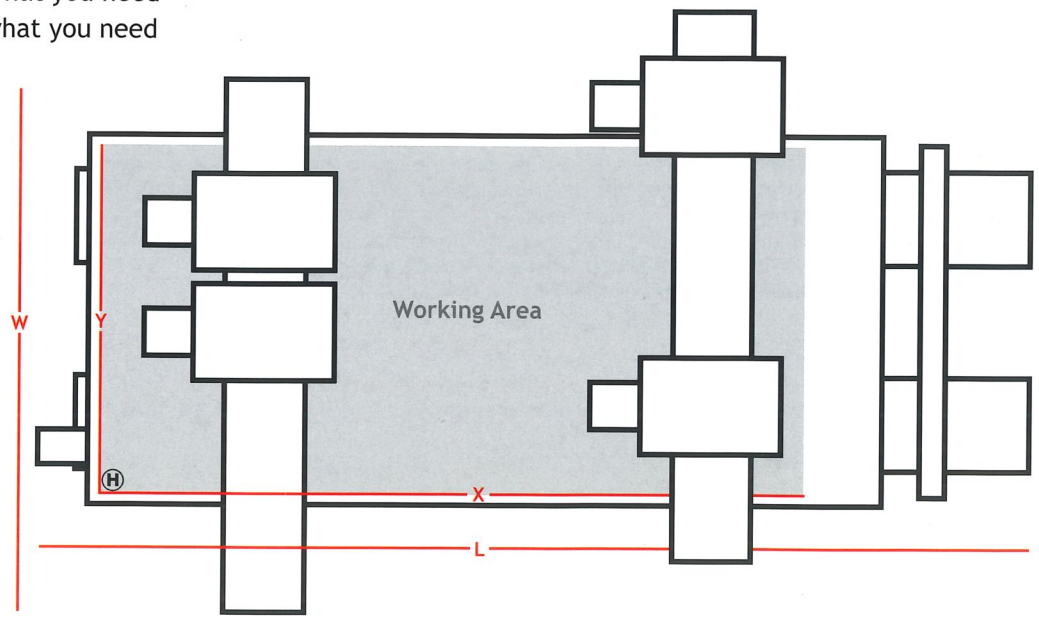
As we develop our own motion control systems, we can custom tailor solutions for your specific needs, be it integration of inline assembly manufacturing systems, that require automatic loading/unloading, to integration of custom sensors. As well as custom electronics, we also custom tailor mechanical solutions, from custom made pick and place systems to, very high clearance machines for trimming or creation of molds. For many high through put applications, multiple spindle systems are a great solution and a specialty of ours. These allow you to increase through put without increasing the number of machines purchased.

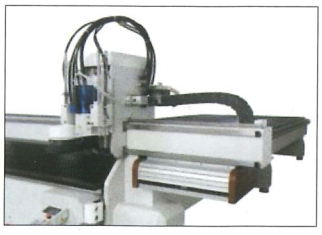
Specialty heads for the machine such as rivet guns, 100,000rpm spindles, drill and tapping heads, ink marking systems have all been integrated into specialty machines at one point and can be put into a customer solution for your company. Call one of our regional offices and discuss with our sales engineers about what we need to do to get your business.

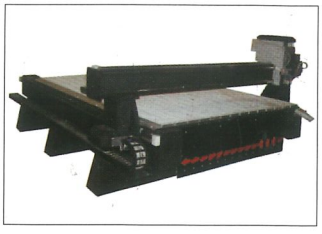


4 Headed router using High Speed Precise spindle for high speed trimming of molds

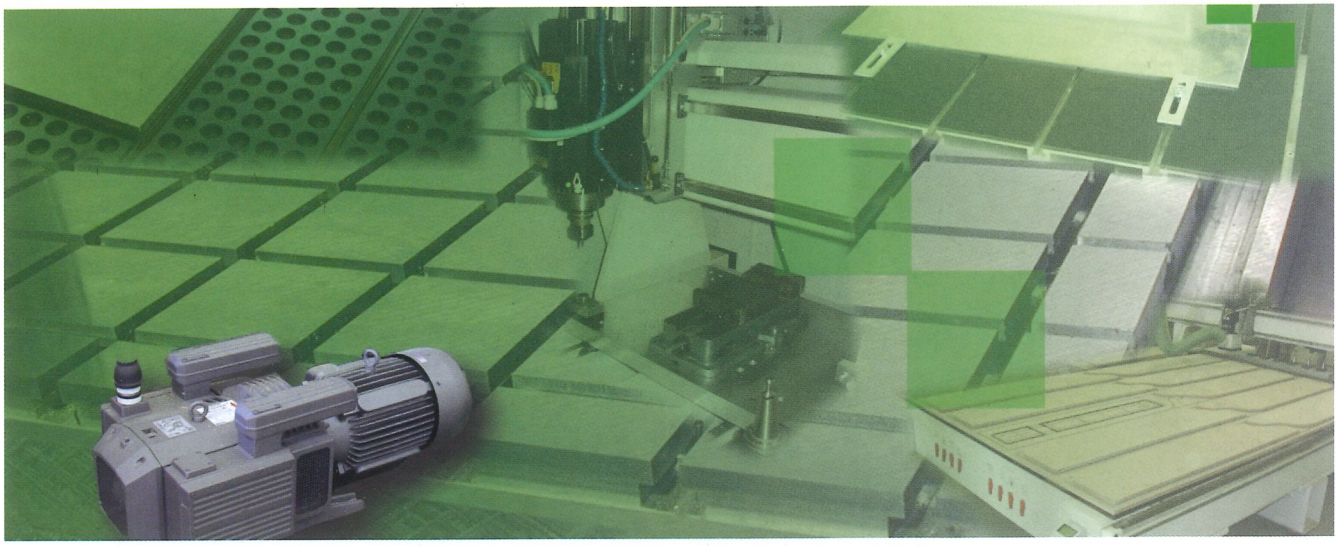
W = Tell us what you need
X = Tell us what you need
Y = Tell us what you need
L = Tell us what you need







Custom toolchangers, custom sensors and specialty groups all available.



Step 2. Selecting Tabletop and Hold down

Which material hold down method is best?

There are various solutions for hold down:

T-slot table
+ fixturing of all kinds of work pieces
+ misting / lubrication can be used
+ no additional sacrificial material is necessary to underlay the work piece
- thin, large format sheets will vibrate while cutting
- the smaller cut out pieces can move freely

T slot plate with vacuum table (regenerative blower)
+ fixturing of all kinds of pieces
+ misting / lubrication can be used
+ thin, large format pieces are fixed while routing
+ cut out pieces stay fixed and do not slip away
+ small pieces can be fixed by T-slots with clamps
- small pieces are not held down by the vacuum

Phenolic table top with high pressure vacuum (grid)
+ engraving materials are held down with very high pressure
+ a special sacrificial material sheet can be made for mass production
+ misting / lubrication can be used
+ clamps can be used with inserts
- only useful for engraving, 3D routing and mass production

Phenolic table with high pressure vacuum system (grid) and MDF sheet between material and the table top
+ flat, medium and large format materials are held down with medium pressure
+ good for cutting jobs
+ phenolic table allows you to use clamps (with inserts)
- fixture is not as good as without MDF
- small pieces cannot be fixed by vacuum
- best for flat sheet materials such as plastic and plywoods

High flow blowers
+ ideal for large machines / large format sheets
+ excellent for cutting large pieces (like channel letters) out of aluminum sheet material
+ misting / lubrication can be used
- very noisy (without muffler)

Customer specific clamps

Customer specific clamps are often used for mass production. In most cases the production of single pieces is not profitable with customized clamps. Customer specific clamps can be installed on T-slot tables or phenolic tables. We suggest phenolic tables, because they are easier to handle. In addition it is easy to drill and tap (with inserts) the phenolic table for use with clamps. We have various clamps to offer you. There are manual, pneumatic or hydraulic systems. In general hydraulic systems are too expensive. The clamping power of pneumatic systems is usually sufficient.

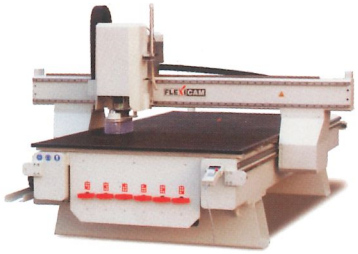
What is the black material on the table?

The material is PVC foam (Sintra, Forex, Kömacel, etc.). It is fixtured on the aluminum t-slot profiles by double-sided tape and then milled flat by the machine. This ensures that the spindle and table surface is at an equal distance all across the table. It is also possible to route ex. 0.1 mm deeper to avoid a burr (especially with soft aluminum). After several weeks of usage, when the grooves begin to impair the vacuum, the whole table should and can be milled flat again. When there is only 1-2 mm of material left, the material needs to be replaced. By using PVC as sacrificial material you will save a lot of time and work finding the right sacrificial material for each job.

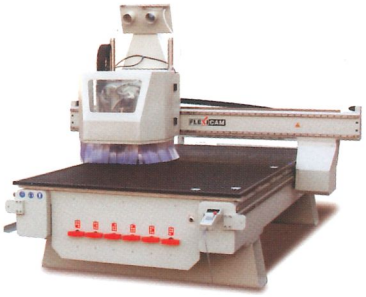
Schnell. Sehr Schnell

(Fast. Very Fast)

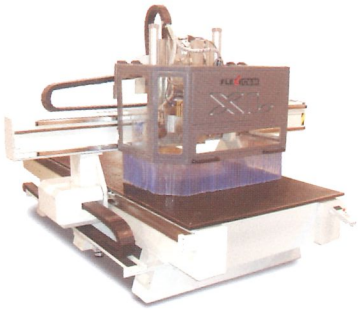
S2



Stealth



PRO NBM



XL SERIES

Viper

COBRA

FLEXICAM

CNC Routers

No matter how you say it, FlexiCAM CNC routers are well known for their high speed and high accuracy cutting. With speeds over 3500ipm, not many machines that can give you this much bang for your buck. Our routers are manufactured in Germany and supported by our Worldwide offices, along with our team of factory trained sales partners, providing localized support.

Members of:

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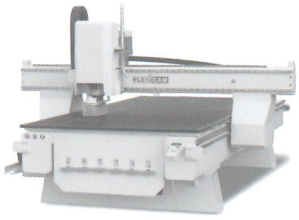

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