



CONVENTIONAL ASSISTED CONTROL MILLING

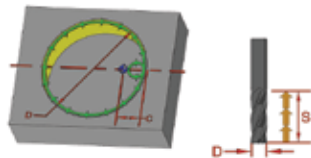
ASSISTED BY THE CONTROLLER

TACHYON + FAGOR 



READY FOR ASSISTED CONTROL CONVENTIONAL MACHINING

IF YOU UNDERSTAND
THIS DRAWING YOU CAN USE
A XENA MILLING



IN ADDITION TO A **TOP QUALITY** MECHANICAL CONSTRUCTION, A **XENA MILLING** MACHINE ASSISTED BY THE TACHYON + FAGOR CONTROLLER WILL ALLOW A CONVENTIONAL MACHINIST TO PERFORM THE FOLLOWING OPERATIONS:

LINEAR ANGULAR MOTIONS



POCKETING CYCLES



FACING CYCLES



PATTERN DRILLING CYCLES

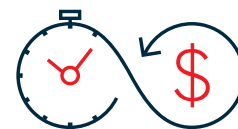


EXTERNAL CONTOURING CYCLES



MU50-1500 ↓

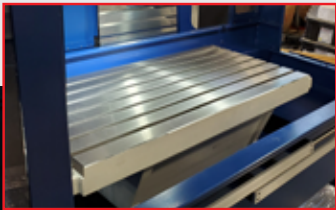
SOME MACHINING
SOLUTIONS TARGET'S
TO SAVE SECONDS.



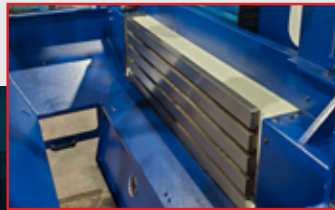
WITH **xena**
OUR **MISSION**
IS TO **SAVE HOURS**

MILLING

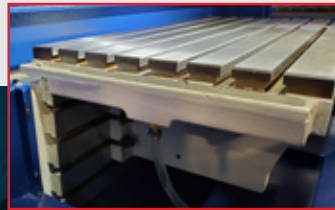
WITH VERTICAL & HORIZONTAL SPINDLE
+ VERTICAL & HORIZONTAL TABLES



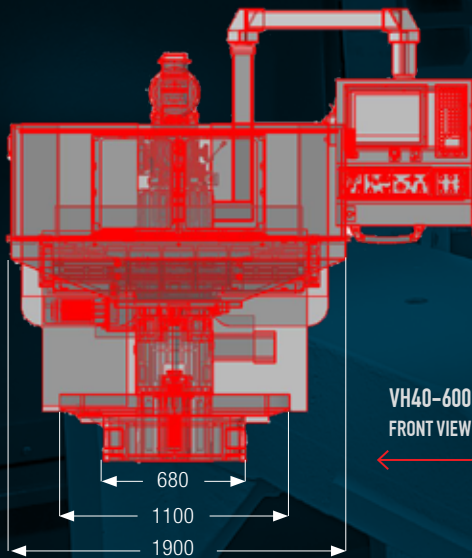
HORIZONTAL TABLE



VERTICAL TABLE

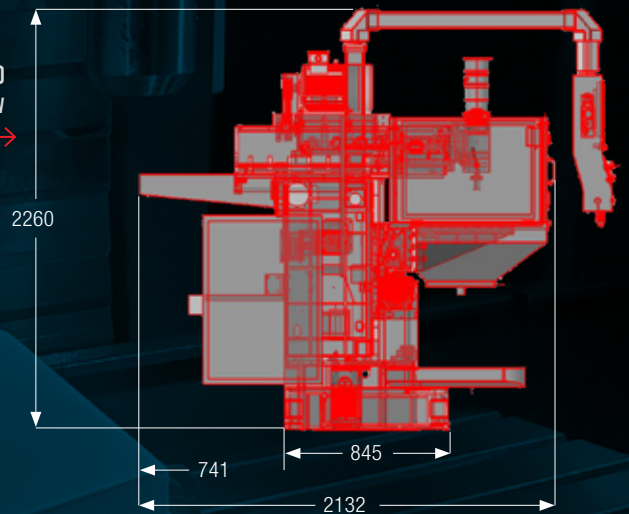


HORIZONTAL TABLE MOUNTED ON VERTICAL TABLE

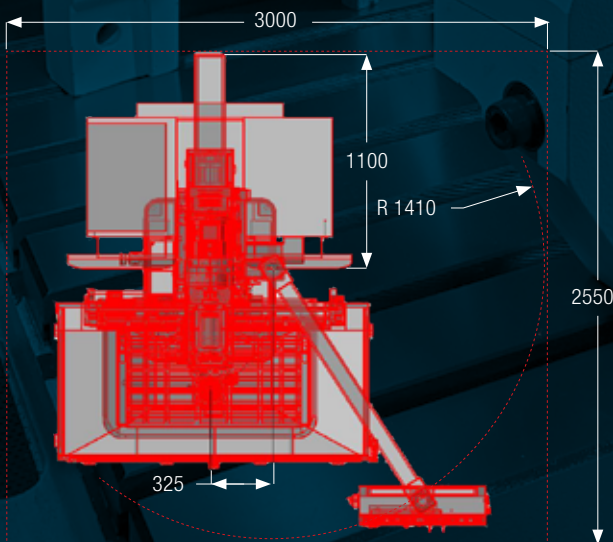


VH40-600
FRONT VIEW

VH40-600
SIDE VIEW



VH40-600
TOP VIEW



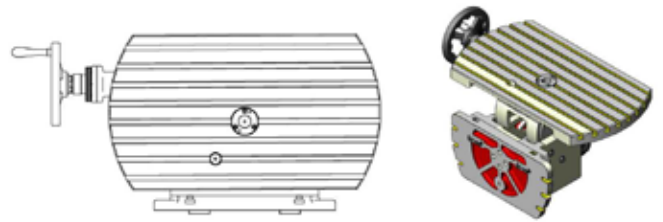
ERGONOMICS
SAFETY
VERSATILITY

XENA VH40-600 IS AN ULTRA COMPACT AND VERSATILE MILLING MACHINE , WITH:

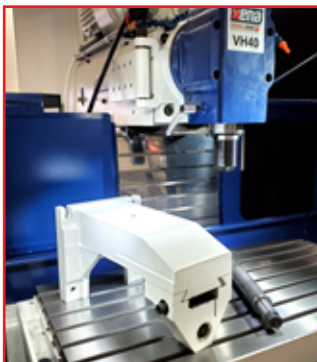
- REMOVABLE HEAD WITH VERTICAL SPINDLE
- HORizontALE SPINDLE
- REMOVABLE HORIZONTAL TABLE
- FOR VERTICAL MOUNTING SURFACE

Based on the necessity of improving the machine, ISOTOP reserve the rights to revise specifications and dimensions

VH40-600	
HORIZONTAL TABLE	
Horizontal table dimensions (Length X Width)	900 x 500 mm
T-SLOT (Length X number)	14 mm x 7 slots
Table load	360 Kg
VERTICAL TABLE	
Vertical table dimensions (Length X Width)	250 mm x 1 200 mm
T-SLOT (Length X number)	14 mm x 3 slots
TRAVEL	
Longitudinal travel (X AXIS)	540 mm
Transversal travel (Y AXIS)	450 mm
Vertical travel (Z axis)	390 mm
Number of feed speed (X, Y, Z)	Infinitely variable
Range of longitudinal & transversal feed speed	0-2 000 mm/min.
Rapid longitudinal & transversal speed	3 000 mm/min.
Range of vertical feed speed	0-1 000 mm/min.
Rapid vertical speed	1 500 mm/min.
VERTICAL SPINDLE	
Spindle nose	ISO40
Number of speed ratio	2 (HIGH / LOW)
Spindle speed range	20-4 000 rpm / 20-650 rpm
Quill diameter and travel	Ø95 mm - 125mm
Rotation angle of the vertical head	+/- 90 deg.
Spindle nose to table distance	95-485 mm
Spindle center to column cover distance	30-488 mm
HORIZONTAL SPINDLE	
Spindle nose	ISO40
Number of speed	2 (HIGH / LOW)
Spindle speed range	20-4 000 rpm / 20-650 rpm
Spindle center to table distance	170-560 mm
MOTOR	
Spindle motor	4P-3.7kw (FUKUTA inverter duty)
Feed motor - Longitudinal	11.6 Nm (SERVO PACK FAGOR)
Feed motor - Cross	11.6 Nm (SERVO PACK FAGOR)
Feed motor - Vertical	11.6 Nm (SERVO PACK FAGOR)
Motor for coolant pump	2P-0.10kw
Motor for Automatic lubrication pump	4W
DIMENSIONS OF THE MACHINE	
Machine size Length X Width X Height	1 600 mm x 1 800 mm x 2 200 mm
Minimal floor space	2 800 mm x 2 550 mm
Net weight	2 400 Kg



TILTING TABLE (OPTIONAL)	
Table dimensions (Length X Width)	660 x 375 mm
Table load allowed on the tilting table	150 Kg
Rotation around vertical axis	+/- 360 deg.
Rotation around longitudinal axis	+/- 30 deg.
Rotation around transversal axis	+/- 30 deg.
Net weight	140 Kg



OPTIONAL: ACCESSORY FOR HORIZONTAL MILLING SHAFT

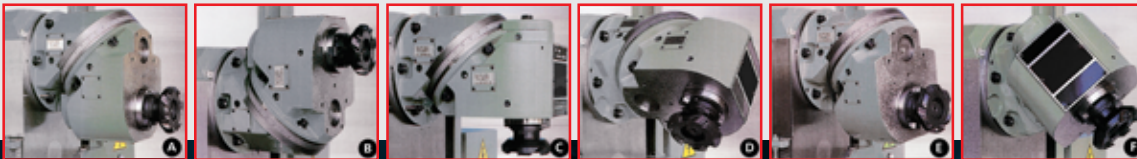


MADE IN CANADA WITH CANADIAN AND IMPORTED COMPONENTS

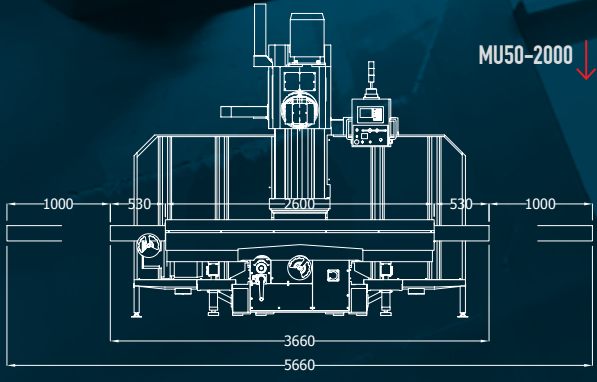
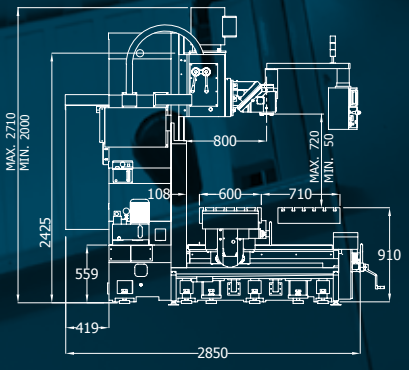
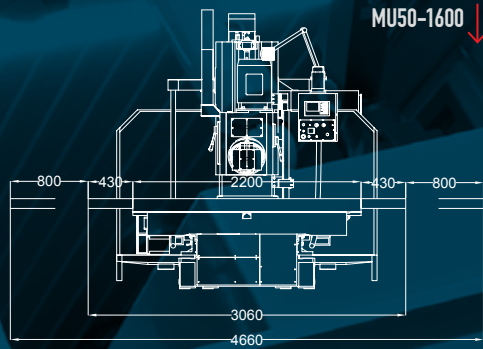
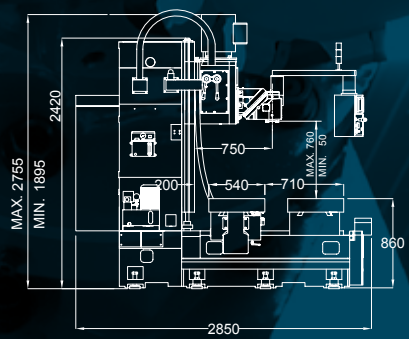
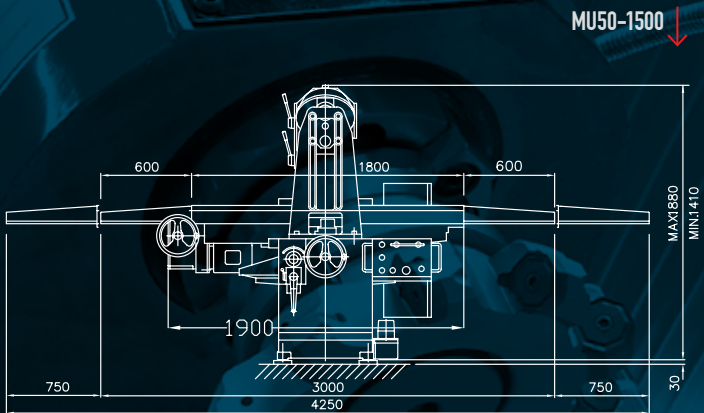
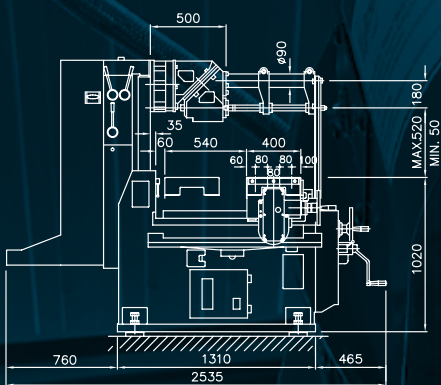
VH40-600



"BED TYPE" MILLING MACHINE

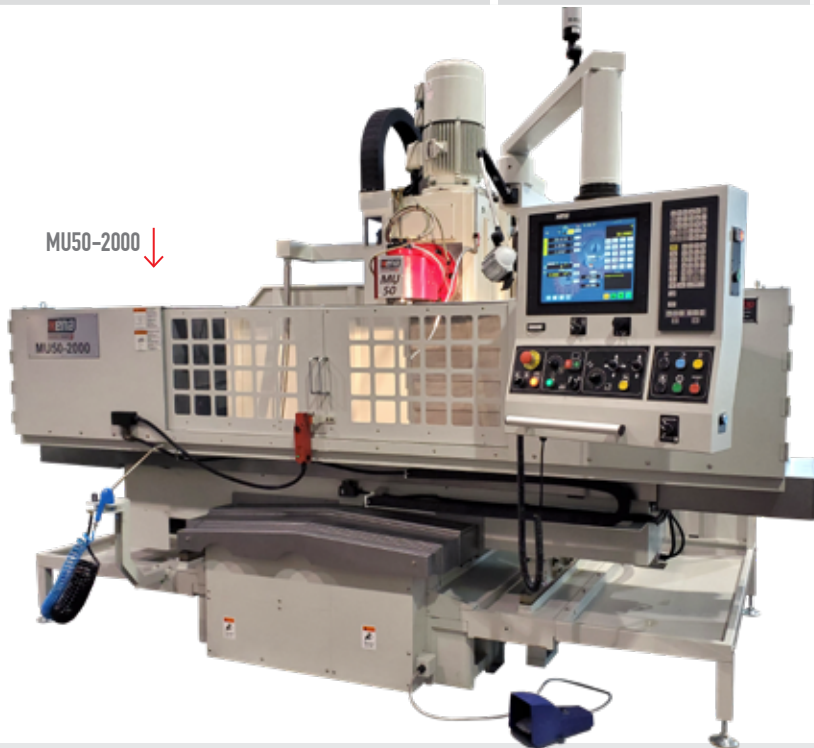


WITH UNIVERSAL HEAD



*NOTE: Based on the necessity of improving the machine, ISOTOP reserve the rights to revise specifications and dimensions.

	MU50-1500	MU50-1600	MU50-2000
TABLE			
Table dimensions (Width x Length)	500 x 1 800 mm	540 x 2 200 mm	600 x 2 600 mm
Longitudinal travel (X AXIS)	1 500 mm	1 600 mm	2 000 mm (opt. 2 500 mm)
Spindle center (horizontal) to table use with horizontal milling harbor	50-600 mm	50-760 mm (opt. 150-1 010 mm)	50-760 mm (opt. 100-960 mm)
Spindle nose (vertical) to table	50-600 mm	50-760 mm (opt. 150-1 010 mm)	50-760 mm (opt. 100-960 mm)
Cross travel (Y AXIS)	500 mm	710 mm (opt. 760 mm ou 900 mm)	710 mm (opt. 900 mm)
Number of feed speed for X and Y axis	Infinitely variable	Infinitely variable	Infinitely variable
Longitudinal and cross feed speed	16-1 200 mm/min.	16-1 200 mm/min.	16-1 200 mm/min.
Longitudinal and cross rapid speed	2 000 mm/min.	2 000 mm/min.	2 000 mm/min.
T-SLOT (Width X Number X Distance)	18 mm x 4 rainures x 80 mm	18 mm x 6 rainures x 80 mm	18 mm x 6 rainures x 80 mm
Maximum table load	1 540 Kg	2 500 Kg	2 500 Kg
SPINDLE			
Spindle nose taper	NT#50	NT#50	NT#50
Number of gear ratio	2 (HIGH / LOW)	2 (HIGH / LOW)	2 (HIGH / LOW)
Spindle speed range	40-2 000 rpm	40-2 000 rpm	40-2 000 rpm
COLUMN			
Vertical travel (Z AXIS)	550 mm	710 mm (opt. 860 mm)	710 mm (opt. 860 mm)
Number of feed speed for Z axis	Infinitely variable	Infinitely variable	Infinitely variable
Range for vertical feed speed	8-450 mm/min.	8-450 mm/min.	8-450 mm/min.
Vertical rapid speed	700 mm/min.	700 mm/min.	700 mm/min.
Spindle center to column distance (head vertical)	500 mm	750 mm (opt. 850 mm)	750 mm (opt. 850 mm)
Spindle nose to column distance (head horizontal)	500 mm	750 mm (opt. 850 mm)	750 mm (opt. 850 mm)
MOTOR			
Spindle motor	4P-11kw (FUKUTA inverter duty)	4P-11kw (FUKUTA inverter duty)	4P-11kw (FUKUTA inverter duty)
Feed motor - Longitudinal	9 Nm (SERVO PACK FAGOR)	1.5 kw (SERVO PACK FAGOR)	9 Nm (SERVO PACK FAGOR)
Feed motor - Transversal	9 Nm (SERVO PACK FAGOR)	1.5 kw (SERVO PACK FAGOR)	9 Nm (SERVO PACK FAGOR)
Feed motor - Vertical	11.6 Nm (SERVO PACK FAGOR)	1.5 kw (SERVO PACK FAGOR)	11.6 Nm (SERVO PACK FAGOR)
Motor for coolant pump	2P-0.12kw	2P-0.12kw	2P-0.18kw
Motor for Automatic lubrication pump	4W	4W	4W
DIMENSIONS OF THE MACHINE			
Machine size (Length x Width x Height)	3 000 mm x 2 535 mm x 1 830 mm	2 850 mm x 3 060 mm x 2 710 mm	3 000 mm x 3 060 mm x 2 700 mm
Minimal floor space	4 250 mm x 2 535 mm	4 660 mm x 2 850 mm	5 100 mm x 3 550 mm
Net weight	3 700 Kg	6 500 Kg	8 100 Kg

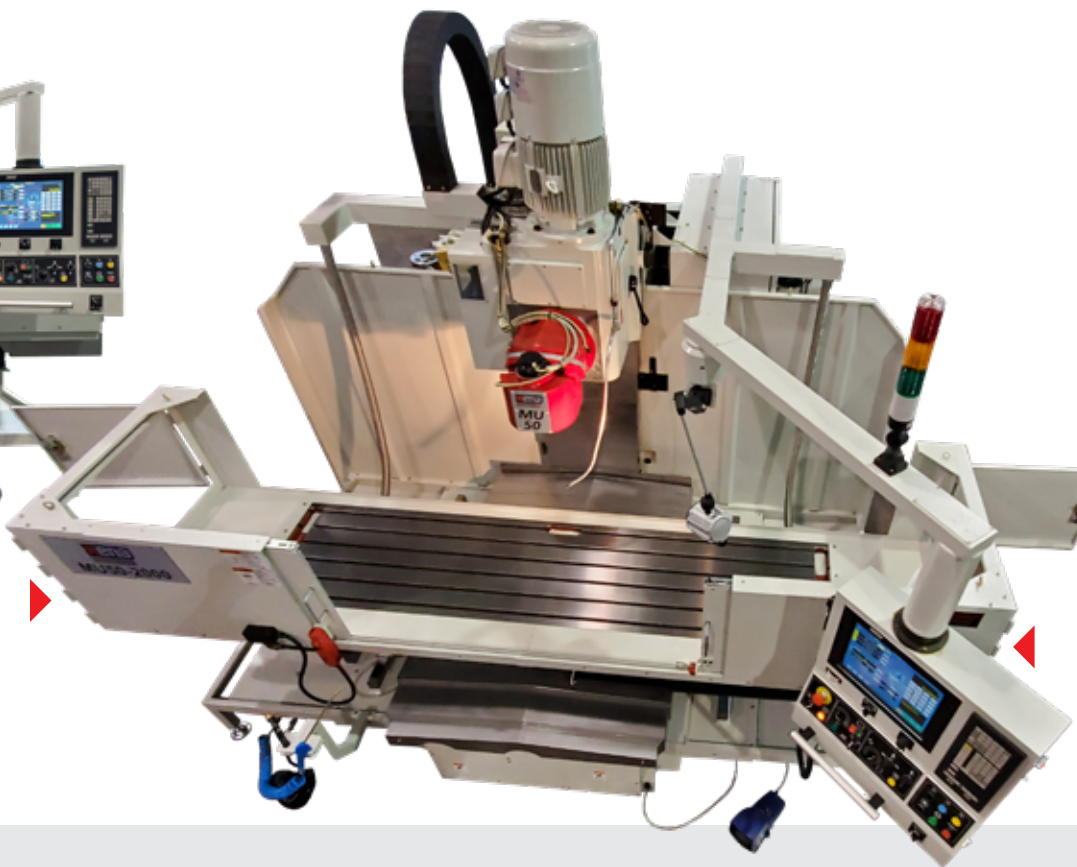


STEEL TELESCOPIC GUARD TO PROTECT BOX WAYS

MU50-1500 | MU50-1600 | MU50-2000



EQUIPMENT WITH A "MADE IN CANADA" SIGN COMPLIES WITH THE CANADIAN CONTENT RATIO REQUIRED FOR THIS TYPE OF IDENTIFICATION. THOSE THAT DON'T HAVE THIS SEAL HAVE AN INSUFFICIENT PROPORTION OF CANADIAN CONTENT IN RELATION TO THE VALUE OF THE EQUIPMENT, BUT THEY STILL REPRESENT A SIGNIFICANT CANADIAN ADDED VALUE.



CORNER HINGES ALLOW OCCASIONAL OPENING OF THE TWO FRONT PANELS

THE WORK TABLE IS EASILY ACCESSIBLE FROM THE FRONT OF THE MACHINE, AS WELL AS FROM THE SIDE DOORS.

STANDARD ACCESSORIES FOR ALL XENA MILLING

- TACHYON controller offering user-friendliness and ease of operation for assisted conventional milling operation.
- FAGOR controller for CNC type milling operation programed with conversational programming feature or standard "G" code.
- Color 15" LCD touch screen.
- Hydraulic draw bar system (PULL STUD TYPE).
- Dynamic breaking for the spindle.
- Telescopic guards for X and Y axis.
- Intuitive "JOYSTICK" control lever for manual axis movement.
- Safe working envelope adapted for manual milling operation.
- Portable manual pulse generator.
- Ball screw with anti-backlash system for the X, Y and Z axis.
- Coolant system.
- Tray for collecting chips and coolant.
- Toolbox.



OPTIONAL: HORIZONTAL MILLING ARBOR ACCESSORIES



OPTIONAL: AUTOMATIC GREASING SYSTEM FOR THE UNIVERSAL HEAD

HEAVY DUTY CONSTRUCTION



THE DESIGN & MANUFACTURING OF THE ELECTRICAL PANELS ARE MADE ACCORDING TO THE CANADIAN REGULATION (CSA)

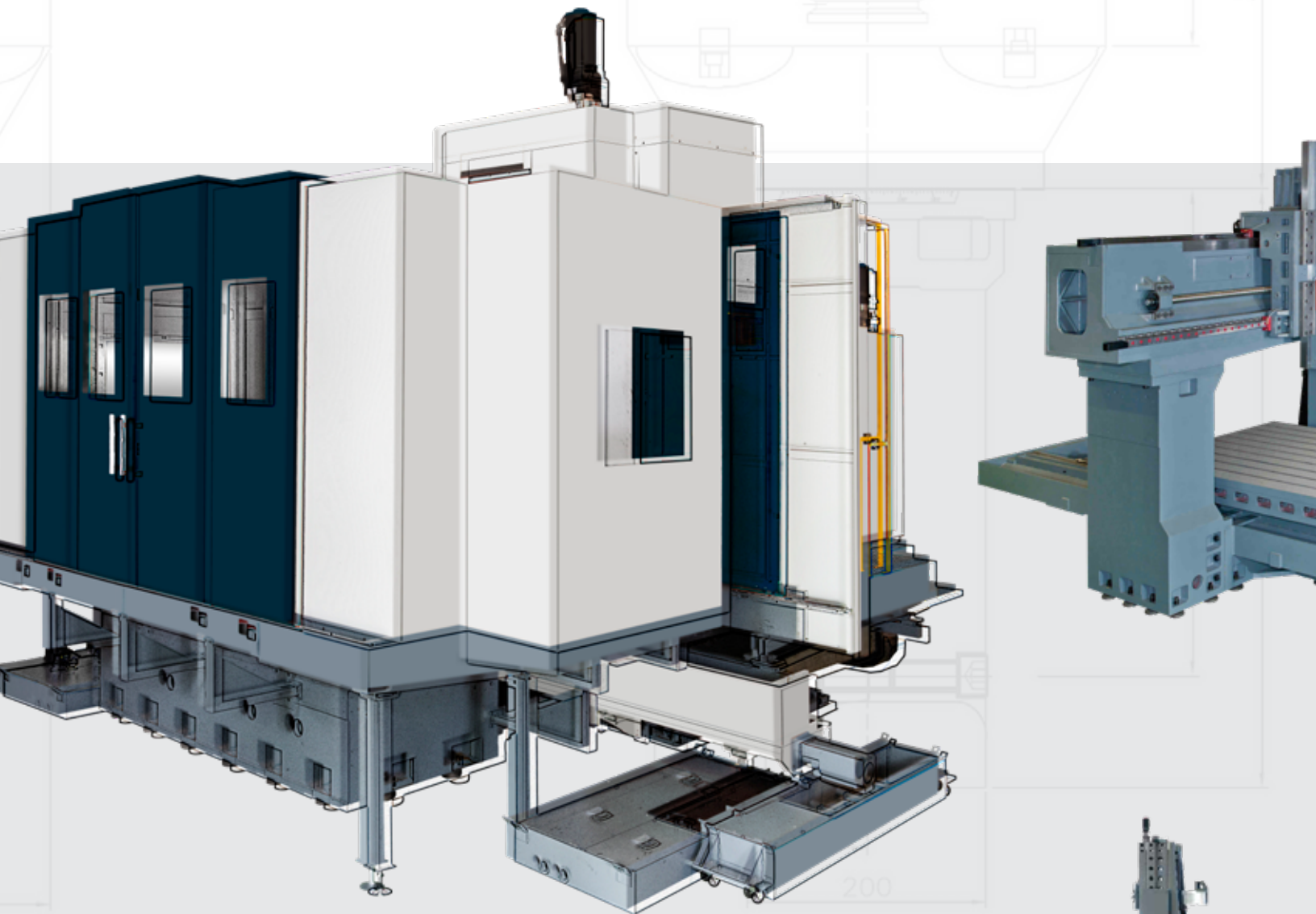


PORTABLE MANUAL PULSE GENERATOR IS INCLUDED WITH ALL XENA MILLING MACHINE

IMPROVE THE PROFITABILITY & THE SAFETY OF YOUR CONVENTIONAL MILLING DEPARTMENT

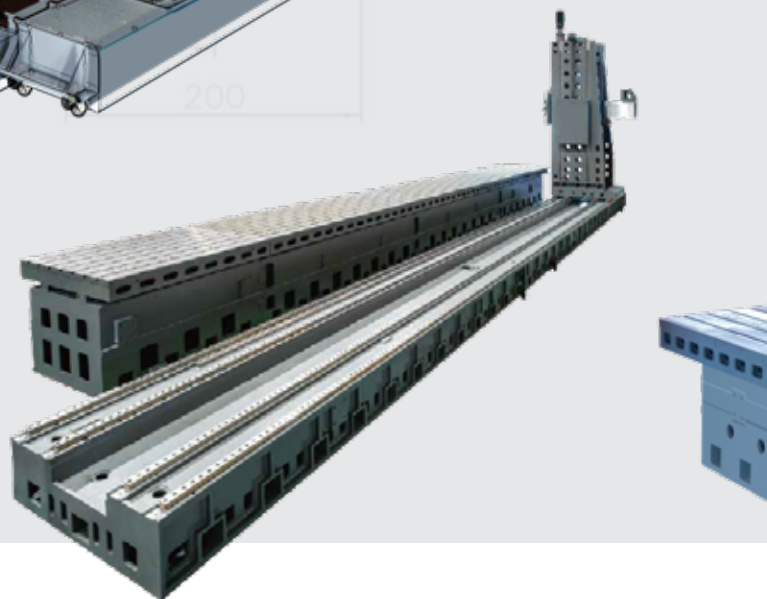
IF OUR STANDARD MODELS DO NOT MEET YOUR NEEDS!

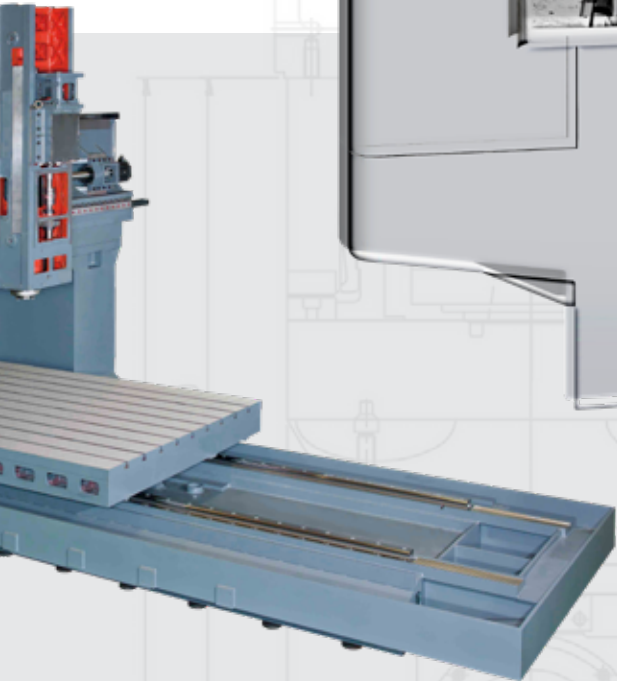
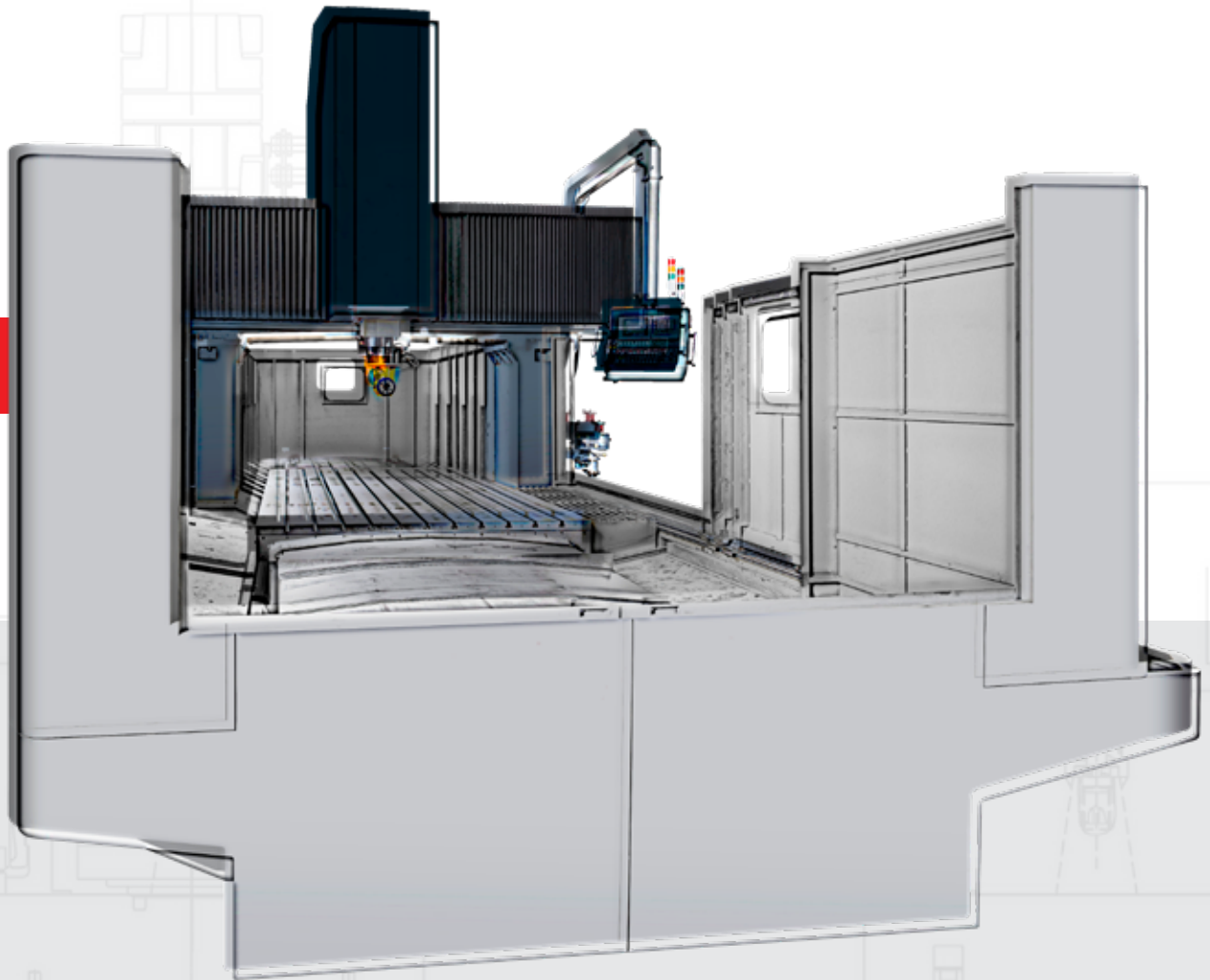
ASK ABOUT OUR CUSTOMIZED SOLUTIONS



HORIZONTAL MILLING WITH FIXED TABLE

2000X1400MM to 8000X3000MM



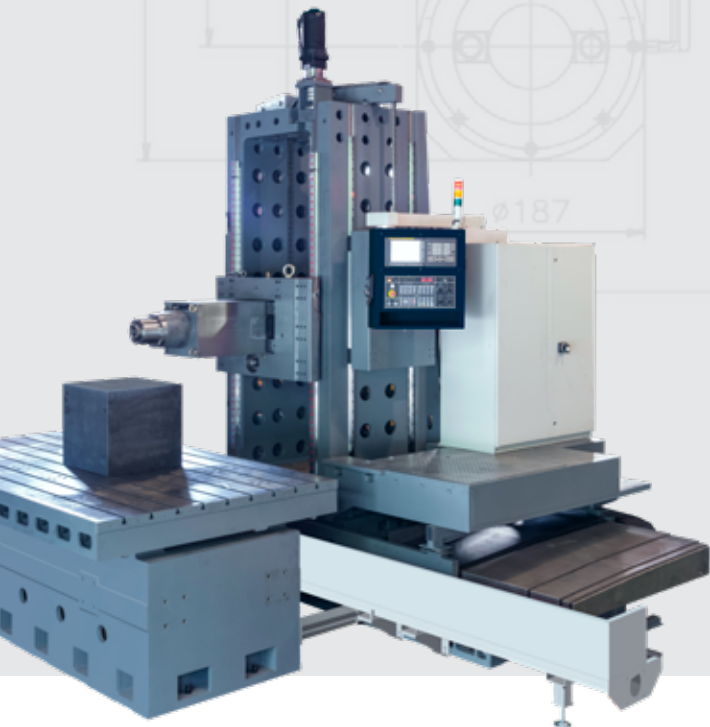


DOUBLE COLUMNS MILLING

WITH FIXED TABLE

1600X1100MM to 6000X4000MM

OTHER DIMENSIONS ARE AVAILABLE ON REQUEST




AUTOMATIC HEAD CHANGER



HORIZONTAL BORING MILL

MANUAL + CNC

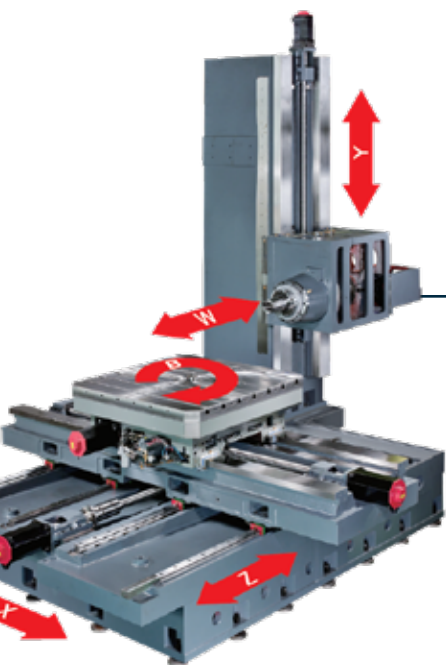
- Manual machining using the **TACHYON** controller
- Full numerical controlled machining using the **FAGOR**  controller (conversational or G-code programming)
- 1° indexing rotary table OR 0.001° simultaneously controlled
- Manual tool changing OR automatic with 40 - 60 tools magazine
- 5000 Kg to 40 000 Kg table load capacity
- Ø110/130/150 mm extensible spindle



ARE YOU LOOKING FOR A
LARGER SIZE CONVENTIONAL
MILLING MACHINE?

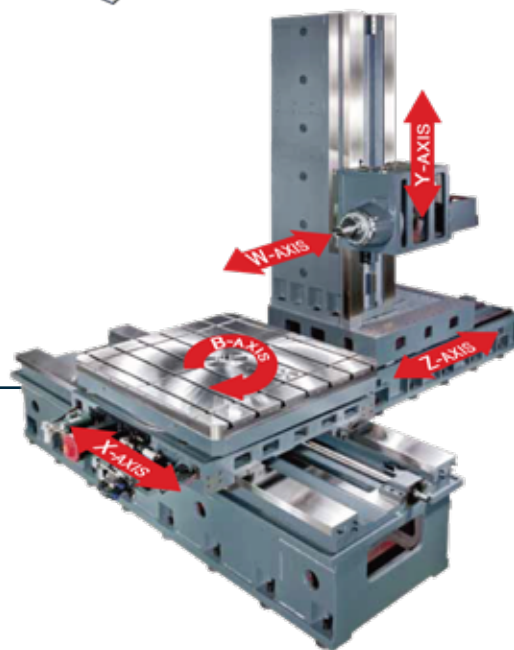
Xena

CONTACT US AT
INFO@XENACANADA.CA



FIXED COLUMN

TABLE
1250X1250MM
TRAVEL
X 2000 / Y 1800 / Z 1400MM



MOBILE COLUMN

TABLE
1600X1400MM OR
2200X2500MM
TRAVEL
X 2000 - 6200MM
Y 1800 - 3500MM
Z 1700MM - 2500MM

MEASURE YOUR PARTS DIRECTLY
ON THE MACHINE WITH

RENISHAW 





WHY YOU SHOULD CHOOSE TO USE A XENA CONVENTIONAL ASSISTED CONTROL LATHE, MILLING OR HORIZONTAL BORING MACHINE?

- Any XENA machine can always be used in a fully manual mode (2, 3 or 4 joystick controls + digital readout and hand wheel or handheld pulse generator).
- Thanks to its TACHYON controller with its conventional assisted control machining method, IT WILL BE EASIER, QUICKER AND SAFER TO machine numerous geometries that were previously impossible to manually achieve.

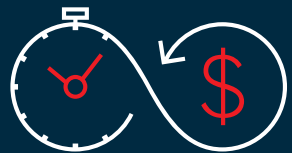
In addition to its ease of use, this method also requires less technical skills, less concentration and less dexterity from the machinist having as a result to reduce risk of errors related to fatigue or lack of attention.

- Learning how to use Xena machine with the TACHYON mode will require approximately 4 hours for training. To use the equipment in this mode it will not be required for the machinist to have any CNC experience.
- At the touch of the swap mode button, the same equipment can then be used in a more numerical mode called "FAGOR MODE" to easily perform CNC machining with conversational canned cycle programming or international "G" code (on screen or via CAD-CAM software).



XENA offers the best of both worlds worlds in the same equipment, which are:

- The ease of use of a conventional machining equipment to efficiently produce single parts, in a manual way, no regards to geometry complexity.
- The possibility to machine parts with more complex geometry or to achieve the production of small batches of parts using the full numerical control mode.



THOSE WHO KNOW
TIME IS MONEY
WILL CHOOSE

Xena



IN ADDITION TO ALL THE PREVIOUSLY MENTIONED BENEFITS Xena LATHES AND MILLINGS ARE BUILT WITH A NORTH AMERICAN VALUE THAT COULD BE GREATER THAN 60% FOR SOME MODELS.