

March 21, 2024

**PALCAM TECHNOLOGIES LTD.**

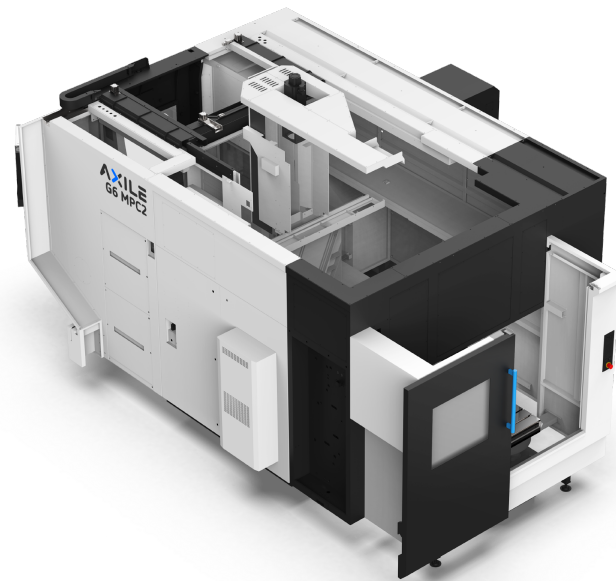
1300 Ringwell Drive  
Newmarket, Ontario L3Y 9C7

Attention: Walter Palisca / 905.853.1675 / walter.palisca@palcam.com

**AXILE G6 5-AXIS MACHINING CENTRE + AXILE G6 MT 5-AXIS MACHINING/TURNING CENTRE**

Dear Walter,

Thank you for the opportunity to submit this budgetary quote for the **AXILE G6 5-AXIS MACHINING CENTRE** and the **AXILE G6 MT 5-AXIS MACHINING/TURNING CENTRE** for your shop in Newmarket, Ontario.





With a rotary table diameter of 500 mm (with the integrated automatic pallet changer) the G6 is a compact vertical machining center designed for agile, smart machining of smaller workpieces requiring complex geometries and intricate features. This highly versatile VMC delivers full 5-axis CNC machining with the built-in spindle moving along the X/Y/Z-axes and the table moving in the rotary C-axis and the swiveling A-axis.

The G6's perfect balance of speed and precision makes it the perfect option for job shops and production lines seeking an upgrade in machining capabilities delivering high removal rates, excellent surface finishes and maximum production efficiency.

In addition to the high-performance G6 model AXILE also offers the G6 MT which combines both milling and turning in one machine and greatly increasing operational flexibility. By reducing set-up times and potential clamping errors the G6 MT can efficiently machine a wider variety of parts including cylindrical components.

## **FEATURES**

- high performance built-in spindle
- table moving by swiveling/rotary axes
- perfect U-shape closed gantry design
- linear scales on all guideways
- for G6 MT: mechanical and laser-type tool measurement system
- for G6 MT: integrated balancing system with additional screen monitor (option)

**MACHINE SPECIFICATIONS**

**LINEAR TRAVEL**

X-axis (carriage left and right)  
 Y-axis (gantry back and forth)  
 Z-axis (headstock up and down)  
 maximum feed rate in X/Y/Z-axis  
 guideways type  
 guideways size in X/Y/Z-axis  
 distance between X/Y-axis guides  
 ball screw diameter/pitch  
 X-axis motor power/torque  
 Y-axis motor power/torque x 2  
 Z-axis motor power/torque

**AXILE G6**

650mm (25.6")  
 850mm (33.5")  
 500mm (19.7")  
 36m/minute (1417" per minute)  
 roller  
 45mm (1.7")  
 500/1110mm (19.7"/43.7")  
 400/12mm (1.6"/0.5")  
 5kW/17.7Nm (6.7 hp/13 ft-lbs.)  
 5.7kW/21.6Nm x 2 (7.6 hp/15.9 ft-lbs. x 2)  
 6kW/26.1Nm ( 8 hp/19.3 ft-lbs.)

**AXILE G6 MT (IF DIFFERENT)**

**ROTARY TRAVEL**

A-axis (table swiveling)  
 A-axis drive system  
 A-axis brake type  
 C-axis (table rotation)  
 C-axis drive system  
 C-axis brake type  
 maximum swiveling speed  
 maximum rotary speed

±120 degrees  
 dual torque motor  
 hydraulic clamping  
 360 degrees  
 torque motor  
 hydraulic clamping  
 100 rpm  
 200 rpm

15 rpm turning / 100 rpm machining  
 1500 rpm turning / 100 rpm machining

**MEASURING FEED BACK**

linear axes  
 linear axes resolution  
 rotary axes  
 rotary axes accuracy

linear scale  
 0.1µm  
 rotary scale  
 ±5"

**G6 ROTARY TABLE FOR AXILE G6 WITH MPC**

table diameter	500 x 500mm (19.7" x 19.7")	Ø500mm (Ø19.7")
maximum table load	400kg (882 lbs.)	350kg turning / 500 kg machining (771 lbs. turning / 1102 lbs. machining)
t-slot width/pitch/number	14 x 100 x 5mm (0.5" x 3.9" x 0.2")	14 x 30 x 12mm (0.5" x 1.2" x 0.5")
threaded hole	M12 x 100mm (M0.4" x 3.9")	
number of hydraulic ports	3	
hydraulic ports working pressure	80bar (1160.3 psi)	
number of pneumatic ports	1	
pneumatic port working pressure	6bar (87 psi)	

**SPINDLE**

spindle taper	HSK-A63	HSK-T63
maximum spindle speed	20000 rpm	
type	built-in	
maximum spindle power	25/32kW (33/53 hp)	
maximum spindle torque	86/111Nm (64.2/99.6 ft-lbs.)	
bearing type front/rear	angular ball	
bearing cooling / lubrication	oil / air	
spindle nose to rotary table clamping surface	from 130 to 630mm (from 5.12" to 24.8")	

**SPINDLE THROUGH COOLANT SUPPLY WITH SEPARATE TANK**

high pressure pump	70bar (1015 psi)
filter type	cartridge + paper band
additional	coolant chiller + oil skimmer

**AUTOMATIC TOOL CHANGER**

change type	chain
carousel drive system	servo motor
magazine positions	120
maximum tool length	300mm (11.8")
maximum tool diameter with all full pockets	75mm (3")
maximum tool diameter with adjacent empty pockets	125mm (4.9")
maximum tool weight	8kg (17.6 lbs.)
maximum loading weight	800kg (1763 lbs.)

**ACCURACY**

positioning	±0.005mm (±0.0002")
repeatability	0.0025mm (0.0001")
linear measuring feedback type/resolution	scale/0.001µm
rotary measuring feedback type/accuracy	rotary scale/±5"

**EXTERNAL COOLANT SUPPLY**

external coolant nozzles/pressure	4 x 3bar (4 x 43.5 psi)
external air nozzles/pressure	2 x 6bar (2 x 87 psi)
coolant tank capacity	1500l (396.2 US Gallon)

**SUPPLIES**

installed power	60 kVa
voltage without transformer	400V
frequency	50/60Hz

**MACHINE DIMENSIONS + WEIGHT**

length with chip conveyor	3990mm (13')
width	4750mm (15.6')
height	2970mm (9.7')
weight	16000kg (35275 lbs.)
floor space	3150 x 4750mm (10.3' x 15.6')

### **STANDARD + INCLUDED EQUIPMENT**

- Heidenhain TNC7 or Siemens One control
- double drive system in the Y-axis
- 20000 rpm built-in transmission spindle with coolant through system
- air conditioner for electrical cabinet
- 40 filter for hydraulic tank
- auto roof for overhead crane loading/unloading
- linear scales for X/Y/Z-axes
- water chiller  $\pm 0.2$  degrees for table and spindle
- coolant through spindle with 40bar high pressure coolant pump
- oil skimmer on sub-coolant tank
- coolant gun
- wash down devices in work area
- chain type chip conveyor
- smart tool automatic tool changer load station
- BLUM laser tool setter integrated in the table
- Kinematics software function
- Renishaw OMP-600 workpiece probe with a solenoid to adjust air pressure and a reference ball bar
- Motorex cool concentrate
- smart tool panel
- rotary scales
- specially designed mechanical and laser type tool measurement system
- automatic spin window
- interfaces for two (2) hydraulic ports and one (1) pneumatic port on A/C-axis rotary table
- solenoid valves for two (2) hydraulic ports and one (1) pneumatic port
- MPC-2 automatic 2-pallet changer
- EMC + safety module for CE regulations
- TSC function: Thermal Spindle Compensation
- SMT function – SVS: Spindle Vibration Supervision
- SMT function – AAC: Axial Accuracy Control
- DCM function: Dynamic Collision Monitoring
- height adjustable leveling pad
- remote control service



**PRICING**

<b>AXILE G6 5-AXIS MACHINING CENTRE:</b>	<b>US \$682,000</b>
<b>AXILE G6 MT 5-AXIS MACHINING/TURNING CENTRE</b>	<b>US \$838,000</b>
<b>OPTIONAL MPC-6 AUTOMATIC 6-PALLET CHANGER</b>	<b>US \$182,000</b>



## TERMS AND CONDITIONS

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### **The pricing**

The shown pricing is in US Dollars F.O.B. Masteel Oakville, Ontario, Canada warehouse. Applicable taxes are extra. CSA approval is included in the package price. Lease + capital financing is available on approved credit.

### **The payment terms**

30% with order, 70% before pick-up.

### **Warranty**

Twelve (12) months.

### **Delivery**

Nine (9) months from date of order acceptance by Masteel America Corporation.

### **Customer's responsibility**

Provide a single concrete slab level foundation per the machine foundation requirements, power to the machine by a certified electrician and hydraulic + way lube oil plus coolant for the machine.

### **Masteel's responsibility**

Assemble / level the machine on the customer's shop floor, complete the machine installation and accuracy test and five (5) days of machine operator training.

Pre-Start Health and Safety Review (PHSR) is the responsibility of the customer and is not included in the above pricing.

*Please note that this quote is subject to change without notice.*

Sincerely,

**MASTEEL AMERICA CORPORATION**

Ron Nater

Manager, Eastern Canada

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