

AHB

TOOLING & MACHINERY, INC.

COMPLETE METALWORKING SOLUTIONS

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ISO Certified

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PALMGREN[®]
a CH Hanson brand

CNC MACHINING

2018



PALMGREN CNC MACHINING

Palmgren has a rich heritage in producing and supplying a full line up of affordable lathes and mills. Designed by machinists for machinists, this line of metalworking machines is loaded with differentiated and meaningful features. All our products enjoy a reputation for exceptional quality, accuracy, sustainability and consistent value. Using this extensive experience, we are now proud to announce a new line of small CNC vertical machining centers, flat bed lathes and slant bed lathes. Backed by a significant and knowledgeable technical staff that understand the manufacturing process made up of engineers, machinists and tooling specialists dedicated to pre-sales consultation and after sales customer support. Whether your requirements are production related, short runs, one-offs, prototyping or secondary operations Palmgren is the dependable choice for your CNC machining needs.

EXCEPTIONAL
QUALITY

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SIEMENS SINUMERIK 808 CONTROL

ROBUST AND EASY TO USE

As the heart and soul of Palmgren CNC machines, Sinumerik 808 is the brain that runs the show. The Sinumerik control can be preconfigured for both turning and milling machines. With its intuitive and powerful programming platform, the Sinumerik 808 lets you create programs right at the machine without the need of CAM software. With an internal storage capacity of 500Mb this control can store a large amount of programs for easy operator access.

The Sinumerik 808 Turning is preconfigured to perfectly meet the requirements of all Palmgren CNC Turning Centers. The control offers features such as full servo controlled rigid tapping and precise and rapid turning operations.

The Sinumerik 808 Milling is preconfigured to perfectly meet the requirements of all Palmgren Vertical Machining Centers. With its powerful user interface, the Sinumerik 808 Milling can run all vertical machining centers up to 3 axes.

ISO/SIEMENS

PROGRAMMING:

The Siemens Sinumerik 808 is a bilingual control that can read Siemens and standard ISO programming. This gives the user multiple options to program based on their comfort and knowledge

CAD CAPABLE:

If a certain part proves too difficult to code on screen, the Siemens Sinumerik 808 has an USB port that allows the user to create code through their chosen CAD/CAM program and upload this code directly into the control



INTERNAL STORAGE:

The Siemens Sinumerik 808 control has 500Mb of internal program storage, allowing the operator easy access to their frequently used programs stored directly on the control

EASY PROGRAMMING:

Screen allows the operator to call up their programs and easily make changes to the code as needed

24.5" X 7" VERTICAL MACHINING CENTER

Palmgren Vertical Machining Centers provide a compact solution for machining small parts and are valuable for shops in need of a "second-op" machine, or additional spindle where needed. Production lines, shorts runs, one-offs and prototyping are the perfect application for these machines. The machines minimal footprint allows it to fit into small areas of a shop where a large machine simply could not go. Quality is our main goal, so every Palmgren Machining Center is tested to assure that they meet the highest quality and accuracy standards. The rigidity of their construction allows for improved accuracy and repeatability when machining. The long-term reliability and precision are the result of the quality of components and the craftsmanship that goes into their construction. The Siemens 808 control is the brains behind the brawn of this machine. This control is perfectly configured to meet the needs of an entry level operator with its simple to use and intuitive interface.

STANDARD FEATURES:

- Linear guides for all three axes
- Balls screws for all three axes
- Safety switches on all doors for improved safety while machining
- Central lubricating system delivers oil to guideways and ball screws to provide long life and reduce maintenance requirements
- Fully integrated, flood coolant system and chip tray for easy machine cleaning and chip removal
- Siemens 808 control with handwheel

Item # **9680191/9680192**



User-friendly portable handwheel

Item #	9680191	9680192
Electric Supply		
Driving Motor	2 HP	
Coolant Pump	0.1 HP	
Torque Motor (X, Y, Z-Axis)	1.75/1.75/1.75 ft-lb	
Voltage	230V	460V
Phase	3-Phase	
Spindle		
Spindle Taper	BT30	
Spindle Speed	50-4000 RPM	
Distance Spindle-Column	8.75"	
Face Milling Dimension (Max)	1.5"	
End Milling Dimension (Max)	1"	
Table		
Table Length x Width	24.5" x 7"	
Distance Spindle-Table	1.5" - 11"	
T-Slot Size	0.5"	
T-Slot Distance	2"	
Number Of T-Slots	3	
Load (Max)	66 lbs.	
Travel		
X-Axis	14"	
Y-Axis	6.75"	
Z-Axis	9.5"	
Rapid Feed (X, Y, Z-Axis)	236"/Min	
Accuracy		
Positioning Accuracy	+/- 0.0008"	
Repeatability Accuracy	+/- 0.0004"	
Dimensions		
Coolant Tank Capacity	12 Gal.	
Overall Dimensions (LxWxH)	55.5" x 52.5" x 71.5"	
Packing Dimensions (LxWxH)	60" x 56" x 80"	
Net Weight	1,433 lbs.	
Gross Weight	1,698 lbs.	



27" X 8.5" VERTICAL MACHINING CENTER

Palmgren Vertical Machining Centers are perfect for production lines, short runs, one-offs and prototyping due to their compact size. These machines provide an economical solution for machining small parts and are valuable for shops in need of a "second-op" machine, or additional spindle where needed. With their automatic tool changer, as well as, 8-tool magazine, these machines are the perfect solution for prototype or short run shops. The machines minimal footprint allows it to fit into small areas of a shop where a large machine simply could not go. Every Palmgren Machining Center is manufactured to assure that they meet the highest quality and accuracy standards. Their rigid construction allows for improved accuracy and repeatability when machining. These machines are created with quality components, which leads to long-term reliability and precision. The brain that makes these machines run lies in the Siemens 808 control. With its easy to use and intuitive interface, this control is suited to meet the needs of any level operator.

STANDARD FEATURES:

- Linear guides on all three axes
- Servo-drives on all three axes
- Safety switches on all doors for improved safety while machining
- Ball screws on all three axes
- Central lubricating system delivers oil to guideways and ball screws to provide long life and reduce maintenance requirements
- Fully integrated, flood coolant system and chip tray for easy machine cleaning and chip removal
- Siemens 808 control with handwheel

Item # 9680185/9680186



8-tool magazine with automatic tool changer



User-friendly portable handwheel

Item #	9680185	9680186
Electric Supply		
Driving Motor	1.5 HP	
Coolant Pump	1/8 HP	
Torque Motor (X, Y, Z-Axis)	2.5/3.75/3.75 ft-lb	
Voltage	230V	460V
Phase	3-Phase	
Spindle		
Spindle Taper	BT30	
Spindle Speed	50-10000 RPM	
Distance Spindle-Column	11"	
Face Milling Dimension (Max)	2.5"	
End Milling Dimension (Max)	1.18"	
Magazine		
Capacity	8	
Tool Diameter (Max)	4.25"	
Tool Weight (Max)	13.25 lbs.	
Tool Changing Time	6 Seconds	
Table		
Table Length x Width	27" x 8.25"	
Distance Spindle-Table	3.5"-15.25"	
T-Slot Size	5/8"	
T-Slot Distance	2.5"	
Number Of T-Slots	3	
Load (Max)	220.5 lbs.	
Travel		
X-Axis	12.25"	
Y-Axis	7.75"	
Z-Axis	11.75"	
Rapid Feed (X, Y, Z-Axis)	394 Inch/Min	
Accuracy		
Positioning Accuracy	+/- 0.0008"	
Repeatability Accuracy	+/- 0.0004"	
Dimensions		
Coolant Tank Capacity	13.25 Gal.	
Overall Dimensions (LxWxH)	70.75" x 64.5" x 78.75"	
Packing Dimensions (LxWxH)	79.5" x 72.5" x 84.5"	
Net Weight	3087 lbs.	
Gross Weight	3351 lbs.	



31" X 10" VERTICAL MACHINING CENTER

Palmgren Vertical Machining Centers are compact machining centers perfect for production lines, short runs, one-offs and prototyping. These machines provide the perfect solution for machining small parts and are valuable for shops in need of a "second-op" machine, or additional spindle where needed. Their 10-tool magazine with automatic tool changer, allow them to be the ideal option for prototype or short-run shops. The machines small footprint allows it to fit into small areas of a shop where a large machine simply could not go. Every Palmgren Machining Center is manufactured and tested to assure that they meet the highest quality and accuracy standards. Improved accuracy and repeatability are the result of the machines rigid construction. The long-term reliability and precision are the result of the quality of components and the craftsmanship that goes into their construction. The brain that makes these machines run lies in the Siemens 808 control, which is perfectly configured to meet the needs of any level of operator.

STANDARD FEATURES:

- Linear guides on all three axes
- Servo-drives on all three axes
- Safety switches on all doors for improved safety while machining
- Ball screws on all three axes
- Central lubricating system delivers oil to guideways and ball screws to provide long life and reduce maintenance requirements
- Fully integrated, flood coolant system and chip tray for easy machine cleaning and chip removal

Item # **9680187/9680188**



10-tool magazine with automatic tool changer



User-friendly portable handwheel

Item #	9680187	9680188
Electric Supply		
Driving Motor	3 HP	
Coolant Pump	1 HP	
Torque Motor (X, Y, Z-Axis)	3.75/3.75/4.5 ft-lb	
Voltage	230V	460V
Phase	3-Phase	
Spindle		
Spindle Taper	BT30	
Spindle Speed	50-10000 RPM	
Face Milling Dimension (Max)	2.5"	
End Milling Dimension (Max)	1.25"	
Magazine		
Capacity	10	
Tool Diameter (Max)	4"	
Tool Weight (Max)	13.2 lbs.	
Tool Changing Time	7 Seconds	
Table		
Table Length x Width	31.5" x 10.25"	
Distance Spindle-Table	18.75"	
T-Slot Size	5/8"	
T-Slot Distance	2"	
Number Of T-Slots	5	
Load (Max)	220 lbs.	
Travel		
X-Axis	15.75"	
Y-Axis	9"	
Z-Axis	14.75"	
Rapid Feed (X, Y, Z-Axis)	394 Inch/Min	
Accuracy		
Positioning Accuracy	+/- 0.0006"	
Repeatability Accuracy	+/- 0.0006"	
Dimensions		
Coolant Tank Capacity	42 Gal.	
Overall Dimensions (LxWxH)	75.75" x 63" x 81.5"	
Packing Dimensions (LxWxH)	81.75" x 69" x 87.5"	
Net Weight	4180 lbs.	
Gross Weight	4380 lbs.	



11" X 24" CNC TURNING CENTER

Palmgren CNC Turning Centers are compact turning centers perfect for production, short runs, one-offs and prototyping. These machines provide an economical solution for machining small parts and are valuable for shops in need of a "second-op" machine, or additional chuck where needed. With their 6-tool electronic turret, these machines are the perfect solution for prototype or short run shops. The machines small footprint allows it to fit into small areas of a shop where a large machine simply could not go. Every Palmgren CNC Turning Center is manufactured and tested to assure that they meet the highest quality and accuracy standards. Their rigid construction allows for improved accuracy and repeatability when machining. Their long-term reliability and precision are the result of the quality of components and the craftsmanship that goes into their construction. The machines are run by a Siemens 808 control, with its intuitive interface, that is perfectly configured to meet the needs of any level of operator.

STANDARD FEATURES:

- 6-tool electronic turret allows for rapid tool changes
- Hardened bed guideways
- Fully integrated flood coolant system and chip tray, for easy machine cleaning and chip removal
- Ball screws on 2 axes
- Central lubricating system delivers oil to guideways and ball screws to provide long life and reduce maintenance requirements
- Safety switches on all doors for improved safety while machining
- LED lamp provides improved lighting while machining

Item # **9680193/9680194**

Item #	9680193	9680194
Electric Supply		
Driving Motor	3 HP	
Coolant Pump	0.05 HP	
Voltage	230V	460V
Phase	3-Phase	
Capacity		
Swing Over Bed	11"	
Swing Over Cross Slide	8"	
Center Width	23.75"	
Center Height	5.5"	
Spindle		
Spindle Nose	MT4	
Spindle Taper	1:4	
Spindle Bore	1"	
Spindle Speed Range	1.2"-157.5"/Min	
Lathe Chuck	5"	
Tool Changer		
Type	Electric	
Number Of Tool Positions	6	
Section Of Tool (Max)	1/2" x 1/2"	
Travel		
X-Axis	7"	
Z-Axis	18.25"	
X-Axis Rapid Speed	118"/Min	
Z-Axis Rapid Speed	98.5"/Min	
Accuracy		
Positioning Accuracy	+/- 0.0008"	
Repeatability Accuracy	+/- 0.0004"	
Tailstock		
Tailstock Taper	MT2	
Tailstock Sleeve Diameter	1.25"	
Tailstock Sleeve Travel	3.25"	
Dimensions		
Coolant Tank Capacity	6.6 Gal.	
Overall Dimensions (LxWxH)	73" x 38" x 57"	
Packing Dimensions (LxWxH)	84" x 46" x 69"	
Net Weight	926 lbs.	
Gross Weight	1146 lbs.	



5" Lathe Chuck



6-tool electronic turret allows for rapid tool changes



Manual hand jog for ease of operator use



13" X 25" CNC TURNING CENTER

Palmgren CNC Turning Centers are the ideal solution for prototyping all the way through full production. Each machine has an 6-tool electronic turret, making Palmgren CNC Turning Centers the perfect solution for prototype or short run shops. These machines provide a simple solution for machining small parts, as well as, shops in need of a "second-op" machine. These machines can be placed in small areas of a shop where larger machines simply could not go. Every machine is manufactured to assure that they meet the highest quality and accuracy standards. The rigidity of these machines allows for improved accuracy and repeatability while machining. The long-term reliability and precision are the result of the quality of components and the craftsmanship that goes into their construction. The brains of these machines lie in the Siemens 808 control with standard handwheel for ease of operator use. This control is perfectly configured to meet the needs of an entry level operator with its simple to use and intuitive interface.

STANDARD FEATURES:

- High-speed spindle
- 6-tool electronic turret allows for rapid tool changes
- Hardened bed guideways
- Fully integrated flood coolant system and chip tray, for easy machine cleaning and chip removal
- Ball screws on 2 axes
- Central lubricating system delivers oil to guideways and ball screws to provide long life and reduce maintenance requirements
- Safety switches on all doors for improved safety while machining
- LED lamp provides improved lighting while machining

Item # 9680197/9680198

Item #	9680197	9680198
Electric Supply		
Driving Motor	5 HP	
Coolant Pump	0.1 HP	
Voltage	230V	460V
Phase	3-Phase	
Capacity		
Swing Over Bed	13.5"	
Swing Over Cross Slide	6"	
Center Width	24.75"	
Center Height	6.75"	
Spindle		
Spindle Nose	A2-4	
Spindle Taper	1:20	
Spindle Bore	1.5"	
Spindle Speed Range	1.2"-137.8"/Min	
Lathe Chuck	6.25"	
Tool Changer		
Type	Servo	
Number Of Tool Positions	6	
Section Of Tool (Max)	5/8" x 5/8"	
Travel		
X-Axis	7.25"	
Z-Axis	21.25"	
X-Axis Rapid Speed	236.2 Inch/Min	
Z-Axis Rapid Speed	315 Inch/Min	
Accuracy		
Positioning Accuracy	+/- 0.001"	
Repeatability Accuracy	+/- 0.0004"	
Tailstock		
Tailstock Taper	MT3	
Tailstock Sleeve Diameter	1.8"	
Tailstock Sleeve Travel	4.75"	
Dimensions		
Coolant Tank Capacity	8 Gal.	
Overall Dimensions (LxWxH)	76.75" x 56.25" x 67.5"	
Packing Dimensions (LxWxH)	81.5" x 65" x 81"	
Net Weight	2866 lbs.	
Gross Weight	3307 lbs.	



6.25" Lathe Chuck



6-tool electronic turret allows for rapid tool changes



Manual hand jog for ease of operator use



5" CNC SLANT BED LATHE

Palmgren CNC Slant Bed Lathes are compact turning centers perfect for production, short runs, one-offs and prototyping. These machines provide an economical solution for machining small parts and are valuable for shops in need of a "second-op" machine, or additional chuck where needed. With their 8-tool electronic turret, these machines are the perfect solution for prototype or short run shops. The machines small footprint allows it to fit into small areas of a shop where a large machine simply could not go. Every Palmgren CNC Slant Bed Lathe is manufactured and tested to assure that they meet the highest quality and accuracy standards. Their rigid construction allows for improved accuracy and repeatability when machining. The long-term reliability and precision are the result of the quality of components and the craftsmanship that goes into their construction. The brain that makes these machines run lies in the Siemens 808 control. This control is perfectly configured to meet the needs of an entry level operator with its simple to use and intuitive interface.

STANDARD FEATURES:

- Ultra-high precision linear rails allow for high precision turning and repeatability
- One shot lubrication pump
- Fully integrated flood coolant system and chip tray allow for easy machine cleaning and chip removal
- Bed cover allows for easy chip removal
- 8 station electronic turret allows for quick and easy tool changes

Item # 9680199

Item # 9680199	
Capacity	
Turning Diameter Over Bed	11.8"
Travel Across Slide	4"
Center Width	15.75"
Chuck Diameter	5"
Spindle	
Spindle Speed	100-3000 RPM
Spindle Through Hole	13/16"
Spindle Mount	MT3
Spindle Motor Power	2 HP
Travel	
X-Axis Travel	4.75"
Z-Axis Travel	12.5"
Max. Moving Speed	118 Inch/Min
Power Of Motor	1/2 HP
Number Of Tool Positions	8
Tool Dimensions Internal	1/2"
Tool Dimensions External	1/2" x 1/2"
Tailstock	
Tailstock Taper	MT2
Tailstock Sleeve Diameter	1.2"
Travel Of Tailstock	2"
Accuracy	
Positioning Accuracy	+/-0.0004"
Repeatability Accuracy	+/- 0.0002"
Voltage	230V
Phase	3-Phase
Dimensions	
Net Weight	1367 lbs.
Gross Weight	1543 lbs.
Overall Dimensions (LxWxH)	55" x 30.25" x 63"
Packing Dimensions (LxWxH)	65" x 43" x 76"



5" Chuck



User-friendly portable handwheel



8" CNC SLANT BED LATHE

Palmgren CNC Slant Bed Lathes are perfect for production, short runs, one-offs and prototyping. These machines provide an economical solution for machining small parts and are valuable in small shops. Their 8-tool electronic turret makes these machines the perfect solution for prototype or short run shops. These machines allow for optimal use of floor space due to their small footprint allowing them to fit into areas larger machines could not go. Quality and accuracy are Palmgren's greatest attributes, so every machine is built and tested to meet the highest standards. The rigidity of these machines allows for increased accuracy and repeatability when machining. The craftsmanship and quality of components that go into these machines shows in their precision and long-term reliability. These machines are run by a Siemens 808 control, that is configured to meet the needs and knowledge level of any operator.

STANDARD FEATURES:

- Ultra-high precision linear rails allow for high precision turning and repeatability
- One shot lubrication pump
- Fully integrated flood coolant system and chip tray allow for easy machine cleaning and chip removal
- Slant bed cover allows for easy chip removal
- 8 station electronic turret allows for quick and easy tool changes

Item # 9680200

Item # 9680200	
Capacity	
Turning Diameter Over Bed	14"
Travel Across Slide	5"
Chuck Diameter	8"
Spindle	
Spindle Speed	100-3000 RPM
Spindle Through Hole	1.825"
Spindle Mount	A2-4
Spindle Motor Power	5.33 HP
Travel	
X-Axis Travel	13"
Z-Axis Travel	7.875"
Max. Moving Speed	39.25 Inch/Min
Power Of Motor	2.5 HP
Number Of Tool Positions	8
Tool Dimensions Internal	5/8"
Tool Dimensions External	5/8" x 5/8"
Accuracy	
Positioning Accuracy	+/- 0.0004"
Repeatability Accuracy	+/- 0.00015"
Voltage	230V
Phase	3-Phase
Dimensions	
Net Weight	3307 lbs.
Gross Weight	3507 lbs.
Overall Dimensions (LxWxH)	82" x 65" x 71"
Packing Dimensions (LxWxH)	87" x 71.25" x 80"



8" Lathe Chuck



User-friendly portable handwheel



Fully integrated lubrication system



CNC VERTICAL TURRET MILLING MACHINE

Palmgren's CNC Milling Machines offer cost effective solutions to all your milling needs. Designed for more complex workpieces Palmgren's CNC Milling Machines offer strength, and rigidity while providing greater versatility. Simple to set up and operate, these mills produce more parts, faster and with better tolerances than standard manual mills.

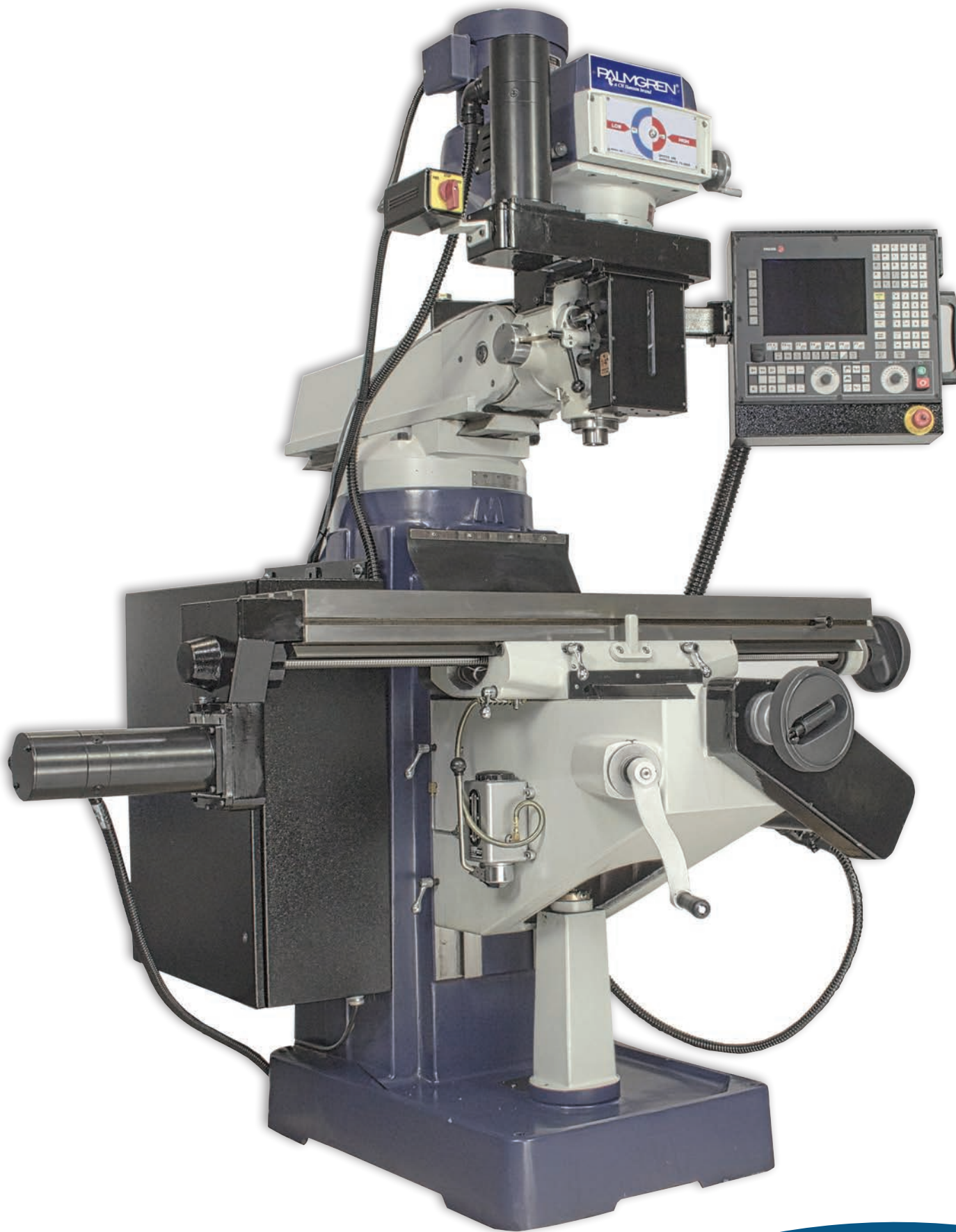
Combined with a Fagor CNC 8055 FL 3-Axis Control, Palmgren's CNC Mills provide faster programming, set-up, and machining. This combination of Palmgren Mills and Fagor controls, offer you the most cost-effective solutions in chip making profitability.

STANDARD FEATURES:

- Variable speed drive
- Heavy duty spline motor drive system
- Vent air cooling system brings air around, through and over the variable speed drive reducing heat expansion
- Heavy duty spindle brake
- Forward / Reverse drum switch
- Fine down feed hand wheel
- Dual taper roller spindle bearing
- Draw bar
- Standard quill power feed and automatic micrometer depth stop
- Heavy duty extended travel ram
- Turret rotates 360 degrees
- The milling head rotates 90 degrees either side of center and can be tilted up to 45 degrees forward and backward from center
- Internally ribbed, box column
- Precision ground and t-slotted table
- Flame hardened to RC 50-54, ground and hand scraped ways
- One-shot lubrication system
- 3HP - 230/460V - 3PH

Item # 9680179

Item # 9680179	
Spindle Taper:	R8
Diameter of Quill:	3-3/8"
Number of Spindle Speeds:	Variable
Range of Spindle Speeds:	70 - 3800 RPM
Spindle Travel:	5"
Head Movement (L to R):	180°
Head Tilt:	45°
Downfeed per revolution of spindle:	0.003", 0.006" 0.0015"
Maximum Distance Spindle to Table:	20"
Maximum Distance Spindle to Column:	30"
Minimum Distance Spindle to Column:	14"
Collet Capacity:	1/8" - 1"
Size of Table:	9" x 49"
Longitudinal Table Travel/X-Axis	22"
Cross Table Travel/Y-Axis	13"
Number of Table Slots:	3
T-Slot Size:	5/8"
T-Slot Centers:	2-1/2"
Maximum Weight of Workpiece:	500 Lbs
Travel of Knee:	16"
Overarm Travel:	12-1/4"
Slide Ways - Hardened & Ground Cross Table/ Transversely/ Y-Axis Way:	Dove Tail
Table Knee/Z-Axis Way:	Dove Tail
Overall Dimensions (WxDxH):	65-1/2" x 63" x 80"
Motor:	3HP - 230/460V - 3PH
Gross Weight (aprox):	2200 lbs.



CNC MACHINING

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