

PALMGREN[®]
a CH Hanson brand

FRIENDS OF PALMGREN SPECIAL OFFERS

MACHINERY SALES EVENT

7" X 12" HORIZONTAL BAND SAW

Palmgren's 7" x 12" horizontal band saw is the ideal saw for machine, maintenance and fabricating shops and for limited run production applications.

- Step pulley drive train with 4 speed settings
- Gear box utilizes a bronze worm gear and hardened worm shaft running in an oil bath
- Adjustable hydraulic down feed of the saw head
- Automatic shut off
- Adjustable ball bearing blade guides
- Flood coolant system
- Rapid acting vise
- Castors for easy positioning of the saw anywhere in the shop

SALE
\$1,250.00



Item #	Description	List Price
9683311	7" x 12" Horizontal Metal Cut	\$1,367.00

8 X 12" HORIZONTAL BAND SAW

Palmgren's 8 x 12" horizontal band saw is built to deliver fast, accurate cutting on all types of materials. Cast iron and rigid steel construction of the saw head and base provides full blade support and eliminates vibration and deflection. The combination of a direct drive train and hydraulic feed system delivers consistent accurate cuts and longer blade life.

- Longer blade and larger blade wheels provide a greater radius to reduce stress on the blade
- Rugged direct drive gear box - no belts to set or change

- 3 Jaw quick acting vise for fast miter cutting set ups.
- Hydraulic feed control
- Adjustable blade guides
- Chip blade brush
- Coolant system with adjustable coolant flow
- Wheels that roll easy for positioning



DIRECT MOTOR DRIVE

The all gear drive power train is directly connected to the motor to deliver full power at any speed, driving the blade at nearly 100% of the available horsepower. The end result is higher efficiency, consistent speed to the blade resulting in longer blade life.



THREE JAW VISE

For standard cut off applications the ridged design makes square cuts easy. When miter cuts are required no wrenches or readjusting of the vise jaws are needed to set-up the vise. The angle can be pre-adjusted by simply loosening a handle. This innovative vise design is simple to use and adjusts in seconds.

SALE
\$2,012.00



Item #	Description	List Price
9683308	8"x12" Direct drive horizontal band saw	\$2,164.00



9" X 16" HORIZONTAL BAND SAW

This general purpose cut-off saw is built to deliver fast, accurate cutting on all types of materials.

- Step pulley drive train with 4 speed settings
- Heavy duty transmission utilizes hardened and ground gears operating in an oil bath
- Variable hydraulic saw head feed
- Blade tension indicator
- Adjustable parallel ball bearing and carbide blade guides
- Flood coolant system
- Quick acting vise
- Auto shut off at end of the cut



Item #	Description	List Price	SALE
9683314	9" x 16" Horizontal Band Saw	\$5,490.00	\$3,225.25

9" ZIP-MITER HORIZONTAL BAND SAW

Palmgren's Zip-miter band saw is a step above conventional saws. Designed around the blade our construction is built from the blade out resulting in the same cutting accuracy as a cold saw.

- Advanced direct drive gear box and motor
- Twin supported head pivot point
- Rapid positioning vise
- Hydraulic blade tensioning system
- Adjustable blade guides
- Flood coolant system
- Safety electrical package – includes thermal overload protection with magnetic starter, 24 volts at the switch and emergency stop switch

Item #	Description	List Price	SALE
9683312	9" Metal Cut Miter Band Saw	\$4,675.00	\$4,440.00



10 X 18" AND 13 X 19" HORIZONTAL MITER BAND SAW

Flexibility and value describe Palmgren's double miter band saw. The workpiece remains fixed while the saw head swivels left or right to cut any angle from 0 to 60° and locks into place with a quick acting locking lever.

- Conveniently located operator control panel that can be used from either the front or back of the band saw
- Variable speed drive
- Top load blade for faster and easier blade changes
- Adjustable blade guides with 6 contact points using cam follower bearings and carbide pads for straight, accurate cuts
- Counter balanced hydraulic feed system for cutting stock at variable rates
- Chip blade brush
- Coolant system with adjustable flow through the guides
- Adjustable work stop
- Miters 60° to the left and 45° to the right
- Rapid acting vise



Item #	Description	List Price	SALE
9683310	10"x18" Miter band saw	\$7,834.00	\$6,695.00
9683313	13"x19" Miter band saw	\$9,950.00	\$8,505.00

10" AUTOMATIC HORIZONTAL BAND SAW

A true production saw built for high to extreme production needs that require high output and heavy duty performance.



- Heavy duty cast iron and steel construction
- Advanced powertrain utilizes a precision gearbox with bronze worm gear and hardened and ground worm shaft, taper roller bearings operating in an oil bath
- Cast iron idler and drive wheels
- Fully automatic on demand hydraulic controls
- Three point clamping vise
- Shuttle vise has a two-sided hydraulic system that allows it to clamp and feed irregular pieces without binding
- Adjustable clamping pressure
- Approach sensor reduces operation cycle time by allowing the saw head to approach the workpiece rapidly then slow to the chosen cutting rate
- Hydraulic blade tension control
- Automatic shut off safety system that senses a broken or loose blade
- Roller table with vertical & horizontal rollers
- Latest technology electronic variable speed inverter
- Control panel with monochrome touch screen is easy to program and operate
- Auto shut off at end of material or after preset number of cuts
- Safety electrical panel with main disconnect , overload protection and low voltage at the switches
- Flood coolant system
- Adjustable ball bearing and tungsten carbide blade guides
- Chip conveyor
- Halogen work light

Item #	Description	List Price	SALE
9684486	10" Full Automatic Band Saw 3HP 3PH	\$27,900.00	\$26,505.00
9684491	Bundle Attachment For 9684486	\$1,590.00	\$1,510.00

12" FULLY AUTOMATIC DUAL POST PRODUCTION BAND SAW

Palmgren's 12" automatic dual post production band saw offers extremely tight tolerances in both cutting repeatability and accuracy even at high cutting rates. The dual post design provides more rigidity, reduces vibration for higher cutting rates and delivers superior surface finish with increased blade life.

- Advanced powertrain utilizes a precision gearbox with bronze worm gear and hardened and ground worm shaft, taper roller bearings operating in an oil bath
- Cast iron idler and drive wheels
- Fully automatic on demand hydraulic controls for the saw head, shuttle vise and split-jaw clamping vise
- Three point clamping vise
- Shuttle vise has a two-sided hydraulic system that allows it to clamp and feed irregular pieces without binding
- Adjustable clamping pressure
- Approach sensor reduces operation cycle time by allowing the saw head to approach the workpiece rapidly
- Hydraulic blade tension control
- Automatic shut off safety system that senses a broken or loose blade stopping the machine
- Roller table with vertical & horizontal rollers
- Latest technology electronic variable speed inverter
- Control panel with monochrome touch screen is easy to program and operate
- Auto shut off at end of material or after preset number of cuts
- Safety electrical panel with main disconnect, overload protection and low voltage at the switches
- Flood coolant system
- Adjustable ball bearing and tungsten carbide blade guides provide maximum support of the blade
- Chip conveyor coolant
- Halogen work light



Item #	Description	List Price	SALE
9684487	12" X 12" Column Type Auto Band Saw 4HP	\$30,500.00	\$28,975.00
9684492	Bundle Attachment For 9684487	\$1,590.00	\$1,510.00

15" AND 18" VERTICAL TOOLROOM SAWS

Palmgren's 15" vertical variable speed band saw is a must when your metal cutting job calls for contour sawing, beveling, slicing, ripping, stack cutting, cutting off or whatever the job requirement - it can handle it.

- Heavy duty Uni-Welded frame construction
- Variable speed drive system
- LED digital SFPM readout
- Handles 1/8" to 5/8" blades
- Chip blower to remove chips from the cutting area
- Adjustable cast iron fence
- Extra-large cast iron tilting table
- Carbide blade guides are easily adjusted for different sizes and types of blades
- Large manual blade tension hand wheel
- Hand wheel with rack and pinion height blade guide adjustment
- Work light
- Safety electrical package with push button magnetic switch, safety off button and key lock switch
- Safety interlock switches on doors
- Comes standard with blade welder, annealer, blade shear and grinder.



Item #	Description	List Price	SALE
9683116	15" Variable Speed Vertical Band Saw W/Welder	\$3,835.00	\$3,640.00
9683119	18" Variable Speed Vertical Band Saw W/Welder	\$4,055.00	\$3,850.00



COLD SAWS

The cold saw is ideal for very precise, burr free cuts in low and high carbon steels and medium gauge tubes and profiles.

The saw is used for cutting off, straight can angle cuts in solids, tubes and profiles where high accuracy and burr free smooth finishes are required.

Safety guard

- Rapid opening mechanism for optimum protection when cutting vise
- Cutting is always performed at an optimum position towards the workpiece
- Clamping system with 4 levers

Item #	Description	List Price	SALE
9683131	Cold Saw 14" Floor Unit	\$4,413.50	\$4,192.83
9683137	HSS Circular Saw Blade 14" 80T	\$111.00	\$105.00
9683138	HSS Circular Saw Blade 14" 160T	\$112.00	\$106.00
9683139	HSS Circular Saw Blade 14" 220T	\$116.00	\$110.00
9683140	HSS Circular Saw Blade 14" 280T	\$119.00	\$113.00

ELECTRIC HAND TAPPER

Palmgren's portable electric hand tapper makes it convenient, efficient and easy to tap a series of holes quickly.

- The specialty built gearbox makes the tapping process uniquely controllable. When no pressure is applied to the spindle it does not spin. Push down on the spindle to get clockwise rotation with a spindle rpm of 280 revolutions per minute. At the desired depth you pull up on the spindle for a counter clockwise rotation and the tap exits the threaded hole at 680 revolutions per minute.
- The swivel joint which is connected to the spindle helps to minimize tap breakage.
- A universal 2-jaw tapping chuck is self-centering and grips any size tap from 11/64" - M5 to 1/2" - M16.
- Depth stop for blind hole tapping
- Molded plastic storage case



Item #	Description	List Price	SALE
9680452	Electric Tapper	\$510.00	\$459.00



9684504
Shown on optional floor stand

9 X 20" BENCH LATHE

Motor 1 HP / 115 V / 60HZ / 1PH

- Machine tool spindle
- Dual P5 taper roller bearings on spindle
- Prismatic bed of solid aged cast iron – hardened
- Feed lead screw is supported and runs on two bearings
- 3 Jaw lathe chuck
- 4 Way tool post
- Safety lathe chuck and tool post guards
- Centers
- Chip tray and splash guard

Item #	Description	List Price	SALE
9684504	9"x20" Bench engine lathe	\$2,120.60	\$2,014.57
9684505	Steel floor stand for 9", 10", 11" and Combo Lathes	\$478.35	\$454.43

Palmgren's combination bench engine lathe and gear head mill delivers the precision, power and versatility to handle a wide range of turning, milling and drilling operations normally found in much larger machines.

COMBINATION 9" X 20" AND 11" X 27" BENCH LATHE & MILL LATHE

- Dual P5 taper roller bearings on spindle
- Prismatic bed of solid aged cast iron – hardened
- Fast easy feed speed and direction changes with front mounted selector handles
- Feed gear box is constructed of helical steel gears running in an oil bath
- Feed lead screw is supported and runs on two bearings
- 3 Jaw lathe chuck
- 4 Way tool post
- Safety lathe chuck and tool post guards
- Chip tray and splash guard

MILL

- Electronic variable speed
- All steel gear drive train
- Built-in work light
- Box column with hardened, ground and hand scraped ways
- 2 MT machine tools spindle with draw bar
- Precision machine tool spindle with guaranteed concentricity of .0005" at the spindle nose
- Drill chuck and arbor



Shown - Item #9684520
with optional floor stand

Item #	Description	List Price	SALE
9680213	9"x20" Bench Combination Engine Lathe & Vari Speed Mill	\$3,912.40	\$3,716.78
9684505	Steel floor stand for 9", 10", 11" and Combo Lathes	\$478.35	\$454.43
9684520	11"x27" Bench Combination Engine Lathe & Vari Speed Mill	\$4,118.55	\$3,912.62
9484505	Steel floor stand for 9684504 & 9684520 9" and combo lathes	\$478.35	\$454.43
9680170	5 piece 2MT round collet set for 9684520 mill lathe combo	\$101.00	\$95.95



12" X 36" ENGINE LATHE

Palmgren's 12" model engine lathe delivers the precision, power and versatility to handle a wide range of turning operations normally found in much larger machines.

All Palmgren lathes are built and inspected to the DIN 8606 toolmakers precision lathe standard assuring accuracy and consistent performance.

- 3 & 4 Jaw Chucks
- Splash Guards
- Chuck and Tool Post Safety Guard
- Inch & Metric Gears for Threading
- Steady Rest
- Follow Rest
- Work Light

Item #	Description	List Price	SALE
9684510	12" x 36" Engine Lathe 115V 1PH	\$8,412.50	\$7,991.88

Item #	Description	List Price	SALE
9684530	5/16" Carbide Lathe Tool Bit Set	\$55.10	\$52.35
9684531	3/8" Carbide Lathe Tool Bit Set	\$68.40	\$64.98
9684532	5/8" Carbide Lathe Tool Bit Set	\$96.95	\$92.10



13" X 40" ENGINE LATHE

Palmgren's 13" engine lathes have the power to deal with heavy metal removal and the accuracy and control to handle precision fine tolerance turning comes standard with a DRO and glass scales for added operator convenience and accuracy. The headstock is designed to provide maximum power for roughing cuts and smooth, quiet power for fine finishing.

- Digital Readout
- 3 & 4 Jaw Chucks
- Splash Guards
- Chuck and Toolpost Safety Guard
- (2) MT3 Dead Centers
- Inch and Metric Gears for Threading
- Steady Rest
- Follow Rest
- Work Light

Item #	Description	List Price	SALE
9684521	Engine Lathe 13" x 40" W/DRO 115-230V 1PH	\$11,680.40	\$11,096.38
9684522	Engine Lathe 13" x 40" W/DRO 230-460V 3PH	\$11,680.40	\$11,096.38

14" X 40" ENGINE LATHE

The Ultimate in turning machines Palmgren's 14" engine lathe has the power to deal with heavy metal removal and the accuracy and control to handle precision fine tolerance turning comes standard with a DRO and glass scales for added operator convenience and accuracy. All the gears are helical precision cut, hardened and ground running in a continual bath of oil. The main spindle is made of high alloy steel and mounted in precision taper roller bearings.

All Palmgren lathes are built and inspected to the DIN 8606 toolmakers precision lathe standard assuring accuracy and consistent performance.

- Digital Readout
- 3 & 4 Jaw Chucks
- Splash Guards
- Chuck and 4- Way Toolpost Safety Guard
- (2) MT3 Dead Centers
- Inch and Metric Gears for Threading
- Steady Rest
- Follow Rest
- Work Light



Item #	Description	List Price	SALE
9684523	D360 LatheEng 14x40" DRO 230V 3PH	\$15,000.00	\$13,950.00

6" Machine Vise included with the purchase of one unit; a \$ 699.00 value



UNIVERSAL HORIZONTAL MILLING MACHINE

Palmgren's universal horizontal milling machine features a rigid knee and column construction and has the ability to do either horizontal or vertical milling making it an ideal solution for just about every milling application.

- Internally ribbed, box column provides maximum machine stiffness and vibration dampening
- Precision ground and t-slotted table
- Flame hardened to RC 50-54, precision ground and hand scraped ways
- One-shot lubrication system
- Heavy duty 3 v-belt drive system
- The speed gear box is made up of hardened and ground gears running in an oil bath
- The table can be positioned by means of manual hand wheels or it is equipped with a gear driven power feed on the "X" axis / longitudinal travel.
- "Z" axis has motorized rapid elevating assist
- A vertical spindle head attachment can transform the horizontal machine to a vertical machine quickly
- The vertical spindle head can be angled 90 degrees to right or left of center
- Flood coolant system and chip tray



Item #	Description	List Price	SALE
9680163	Horizontal Mill w/Vertical Mill Head Attachment	\$20,685.00	\$18,616.00

MILL / DRILL MACHINE

Our Mill / Drill machine offers maximum versatility and economy for your end milling, face milling, slotting, drilling and boring applications all in a single machine designed to bring a competitive advantage to the smaller job shop, model shop, fabrication shop and maintenance departments.

- Solid cast iron construction
- Large, precision ground T-slotted machine table with adjustable feed stops
- Hinged belt cover for faster speed changes
- Heavy-duty tapered roller bearings support the spindle
- Positive easy to read internal depth stop
- Fine feed mechanism with graduated dial for accurate down feed movement
- Easy to read dials
- 360° head swivel
- Comes standard with draw bar, work light, R8/J6 arbor, face mill cutter, R8/MT3 arbor, drill chuck and key and 6 piece R8 arbor set (1/8", 1/4", 3/8", 1/2", 5/8" & 3/4")

Item #	Description	List Price	SALE
9680161	Mill/Drill machine, 2HP, 230V, 1PH	\$2,577.00	\$2,195.00
9670104	Heavy duty steel floor stand for 9680161 mill/drill	\$366.00	\$347.00



Shown with optional steel floor stand



14" GEAR HEAD MILLING MACHINE

Palmgren's 14" gear head milling machine delivers the precision, power and versatility to handle a wide range of machining operations normally performed in much larger and more expensive milling machines.

The all gear drive transmission delivers full power at any speed driving tools at nearly 100% of the available horsepower equipped with a high performance brushless DC motor with permanent current control and the latest technology variable speed inverter. A rigid box column with hardened, ground and hand scraped dovetail ways the milling head can be tilted right or left up to 90 degrees.

Item #	Description	List Price	SALE
9680164	14" Gear Head Milling Machine, Variable Speed, 1.25HP, 120V, 1PH	\$2,632.65	\$2,500.00
9670107	BF16 & BF20 Mill Drill Stand	\$505.10	\$479.85

GEAR HEAD MILLING MACHINE MOTOR VERTICAL SPINDLE 3 HP / 230 V / 60HZ / 1PH

Palmgren's deluxe gear head milling machine delivers the precision, power and versatility to handle a wide range of machining operations normally performed in much larger and more expensive milling machines.

The all gear drive transmission delivers full power at any speed. A rigid box column with hardened, ground and hand scraped dovetail ways provide accurate head positioning.

Precision machine tool spindle equipped with taper roller bearings and a guaranteed spindle concentricity of .0005".

The cross slide table is precision ground with T-slots, adjustable limit stops, scale and three satin metal adjusting hand wheels.

Our gear head mill comes with an automatic tapping mode.

- Tapping cycle
- Depth stop
- Digital speed readout
- Digital readout depth gauge
- Draw bar
- Way cover
- R8 Spindle Taper

Shown with optional
steel floor stand



Item #	Description	List Price	SALE
9680165	17" Gear Head Milling Machine, Variable Speed, 3HP, 230V, 1PH	\$4,981.85	\$4,732.76
9670105	Heavy duty steel floor stand for 9680165 mill	\$827.55	\$786.17

6" Machine Vise included with the purchase of Knee Mill; a \$ 699.00 value



VERTICAL TURRET MILLING MACHINE

Quality, durability and value – three key reasons to buy a Palmgren vertical turret milling machine. Every mill is manufactured and tested to assure that they meet the highest quality and accuracy standards. Extra fine Meehanite castings provide the ultimate in rigidity for a lifetime of vibration free accuracy.

- 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

Model 9680176 also includes:

- 2 Axis DRO with reference point, calculator, absolute/incremental operation, conversion inch/metric, pitch circle calculator (incremental dimension), full and partial circles and linear patterns (graduated circle), bolt hole pattern function, reversible measured values radius/diameter and glass scales
- Automatic "X" & "Y" axis table power feeds

Item #	Description	List Price	SALE
9680167	Vertical Turret Mill	\$11,255.00	\$7,999.00
9680176	Vertical Turret Mill w/DRO and Power Feeds	\$15,775.00	\$11,829.00



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 programing, set-up, and machining. This combination of Palmgren Mills and Fagor controls, offer you the most cost-effective solutions in chip making profitability.

- 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 #	Description	List Price	SALE
9680179	CNC Turret Mill W/Fagor Controller	\$32,200.00	\$30,520.00

6" Machine Vise included with the purchase of item #9680179; a \$ 699.00 value



MILLING MACHINE ACCESSORIES



Item #	Description	List Price	SALE
9670170	End Mill Set 10 Pcs	\$132.65	\$126.02
9670171	End Mill Set 20 Pcs	\$204.10	\$193.90
9670173	Milling Starter Kit w/Clamping	\$1,071.50	\$1,017.93
9680169	MT2 Chuck with 10 ER Collets	\$215.50	\$204.73
9680171	Collet Chuck Set ER32-R8 12 Pcs	\$290.80	\$276.26
9680172	Collet Chuck Set ER16-R8 8 Pcs	\$199.00	\$189.05
9680211	5 Axis Milling stop	\$138.00	\$131.10
9680160	R8 Collet set with rotating storage rack	\$125.00	\$118.75



HEAVY DUTY 16-SPEED FLOOR MODEL DRILL PRESSES

Palmgren's heavy duty 16-speed drill presses are designed and built for drilling a wide array of materials.

- Fully enclosed spindle for accurate drilling operations
- Maximum spindle run out of 0.0005"
- Extended quill/spindle travel ideal for deep hole applications
- LED readout of spindle speed and quill travel
- Rack and pinion table raiser
- Precision ground t-slotted work table with coolant trough
- Table tilts 45° right and left and rotates 360° around the column
- Quick change vertical depth stop for accurate, repeatable feed length
- Heavy cast metal 3 spoke quill feed handle with ergonomic speed feed handle
- Front mounted industrial paddle-type power switch
- Includes chuck with key and arbor
- Model 9680210 comes with manual reversing switch

Self-centering vise included with the purchase of units 9680209 and 9680210; a \$280.00 value



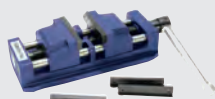
Item #	Description	List Price	SALE
9680158	15" 16- Speed Floor step pulley drill press	\$737.90	\$701.01
9680177	17" 16- Speed Floor step pulley 1PH drill press	\$808.40	\$767.98
9680178	17" 16- Speed Floor step pulley 3PH drill press	\$821.05	\$780.00
9680209	20" 16- Speed Floor step pulley 1PH drill press	\$1,188.40	\$1,128.98
9680210	20" 16- Speed Floor step pulley 3PH drill press	\$1,200.00	\$1,140.00

PALMGREN'S PREMIUM DRILL PRESSES

Palmgren's premier line of step pulley drill presses have a wide range of speeds and are constructed through-out to form a solid base for heavy, accurate continuous use. The pulleys are long wearing aluminum alloy, fully machined and balanced.

Our exclusive quick change handle and motor spring plate provides consistent, proper tension from the motor to the belt and pulleys all the time. The fully enclosed machine tool spindle has a concentricity of .0005" at the spindle nose.

- Built in halogen work light
- Forward & reverse switch
- Drill depth stop
- Digital depth gauge
- Digital speed display
- Interlocking spindle safety guard
- Electric interlock on the pulley cover
- Built in tool ejector



Self-centering vise included with the purchase of units 9680214 and 9680216; a \$280.00 value

Item #	Description	List Price	SALE
9680214	16" 16-Speed Step Pulley Drill Press Floor 115V	\$2,597.95	\$2,468.05
9680216	22" 9-Speed Step Pulley Drill Press Floor 230V 3PH	\$3,644.50	\$3,462.28



HEAVY DUTY VARIABLE SPEED DRILL PRESSES

With the Palmgren 20" variable speed drill press you can dial the best rpm for the tool and material while the job is running. Simple hand wheel adjustment.

- Heavy duty precision drill head has all the bearing surfaces precision bored simultaneously for exact alignment
- 3 MT fully enclosed machine tool spindle with 6" travel and a 3" quill diameter
- Full bearing support with radial thrust and ball bearings minimizes tool deflection and increases spindle accuracy
- LED spindle speed readout
- Front mounted positive control depth stop
- Ergonomic side mounted hand wheel for instant speed changes



Self-centering vise included with the purchase of unit 9680176; a \$280.00 value

Item #	Description	List Price	SALE
9680175	20" Variable Speed Drill Press 115/230V 1 PH	\$4,530.00	\$3,700.00



HEAVY DUTY VARIABLE SPEED DRILL PRESSES

Palmgren's highest quality drilling machine is built using the latest drilling technology and operational features that stand up to production output and accuracy. Built with the operator in mind these premier drills combine efficiency, safety and ergonomics giving them an edge over all competitive models. The unique combination of V-belt and variable speed inverter provides the broadest speed range available on the market today. This speed range delivers the power and torque for large hole drilling and the high speed and control for small hole applications - making it ideal for working in a great array of materials. The pulleys are long wearing aluminum alloy, fully machined and balanced and are driven by a Gates 7M industrial V-ribbed V-belt that delivers all the needed power to the spindle with a service life of 10,000 hours.

This drill uses a brushless DC motor with permanent current control combined with the latest state of the art variable speed inverter designed and built exclusively for metalworking machine tools. The fully enclosed machine tool spindle has a concentricity of .0005" at the spindle nose.

- Built in halogen work light
- Forward and reverse switch
- Tapping mode
- Auto mode that activates the spindle by pulling down on the hand feed lever
- Coolant
- Digital depth gauge
- Digital spindle rpm readout
- Interlocking spindle safety guard
- Electric interlock on pulley cover
- Magnetic overload protection
- Built in tool ejector
- Chuck and arbor

Self-centering vise included with the purchase of unit 9680217; a \$280.00 value



Item #	Description	List Price	SALE
9680217	16" Variable Speed Floor Drill Press 230V 1Ph	\$4,229.20	\$4,017.74



HEAVY DUTY GEAR HEAD DRILL PRESSES

This versatile all gear drive drill press is ideal for precision drilling applications and continuous industrial use. The all gear drive transmission delivers full power at any speed, driving the cutting tools at nearly 100% of the available motor horsepower utilizes the combination of steel and reinforced fiber gears.

- Wide speed range with 8 different speeds
- Fully enclosed machine tool spindle with internal 3 MT mounted in precision bearings
- Forward & reverse spindle switch
- Front mounted dial adjusted work stop
- Interlocking chuck guard



Self-centering vise included with the purchase of units 9680224 and 9680223; a \$280.00 value

Item #	Description	List Price	SALE
9680224	18" Gear Head DrlPrs 230V 3PH	\$3,077.30	\$2,923.44
9680223	20" Gear Head DrlPrs 230V 3PH	\$3,956.60	\$3,758.77



HEAVY DUTY GEAR HEAD DRILL PRESSES

This heavy duty drill press uses a mechanical clutch system for the power feed and is built to handle all you drilling, reaming, chamfering, tapping, spot facing and counter boring applications with ease.

- Spindle gear box is equipped with hardened and ground steel gears and shafts lubricated on a continuous oil bath
- Fully enclosed machine tool ground spindle with internal 4 MT mounted in precision bearings
- Forward & reverse spindle switch
- Mechanical clutch spindle power feed
- Fine feed wheel for small hole and finishing
- Safety electrical package with emergency push button stop switch, 24 volts at the switch and interlocking chuck guard
- Flood coolant system

Self-centering vise included with the purchase of unit 9680212; a \$280.00 value



Item #	Description	List Price	SALE
9680212	22" Gear Head DrlPrs 2HP 240V 3PH	\$6,092.80	\$5,788.16



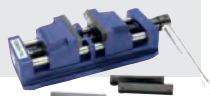


HEAVY DUTY GEAR HEAD DRILL PRESSES

Equipped with a state-of-the-art push button electro-mechanical clutch for power feed engagement and overload protection. This drill utilizes the combination of steel and reinforced fiber gears to ensure positive, quiet operation.

- Wide speed range with 8 different speeds
- Electro-magnetic clutch power feed
- Fully enclosed machine tool spindle with internal 3 MT mounted in precision bearings
- Quick release drill ejector
- Forward & reverse spindle switch
- Front mounted dial adjusted work stop
- Interlocking chuck guard
- Work light
- Coolant system

Self-centering vise included with the purchase of unit 9680225; a \$280.00 value



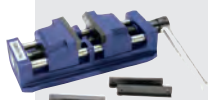
Item #	Description	List Price	SALE
9680225	22" Gear Head DrllPrs 3HP 240V 3PH	\$5,170.10	\$4,911.60

HEAVY DUTY GEAR HEAD DRILL PRESSES

This very rugged drill press is the ideal choice for medium – to heavy duty – large hole making production and is built with performance features to withstand continuous industrial use.

All gear drive hardened and ground steel gears that operate in an oil bath with 18 speeds to choose from. Tempered, ground spindle with internal taper mounted in precision bearings for maximum accuracy, 6 spindle power feed rates with electromagnetic clutch, power feed is engaged by push button located in the three spoke hand feed lever.

- Tapping mode
- Built in halogen work light
- Hand wheel for fine feed of spindle
- Coolant system
- Electronic interlock spindle safety guard
- Automatic tool ejector



Self-centering vise included with the purchase of unit 9680222; a \$280.00 value

Item #	Description	List Price	SALE
9680222	30" Gear Head PwrFd Floor 4HP 230V 3PH	\$13,711.35	\$13,025.78

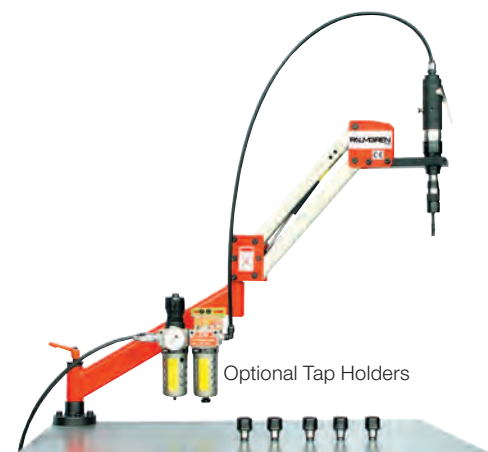


QUICK TAP

Palmgren's Quick Tap pneumatic tapping machine is suitable for small to medium size taps. Parallel arm reach 37" max. / 4" min.

- Stationary bench bracket
- Quick change tooling adaptor/size 1
- Air preparation unit with lubricator, filter, regulator and pressure gauge
- Vertical motor bracket
- High torque reversible air motor

Item #	Description	List Price	SALE
9680420	Quick-Tap Pneumatic Tapping machine 37" reach - 400 rpm	\$2,420.00	\$2,299.00



PRODUCTION TAP

Palmgren's Production-Tap pneumatic tapping machine is suitable for a wide range of general purpose to heavy duty tapping applications. The arm is equipped with lubricated for life bearings at all swivel points, provides weightless operation over a wide area and permits the operator to bring the tap to the hole on very large and multi-level parts with ease.

- Refer to page 51 for how to order
- Parallel arm with 8" to 55" reach
- Stationary bench bracket
- Quick change tooling adaptor
- Air preparation unit with lubricator, filter, regulator and pressure gauge
- High torque reversible air motor
- See page 54 for optional tap holders

Item #	Description	List Price	SALE
9680410	Production- Tap Pneumatic Tapping Machine, 55" reach - 400 rpm	\$2,550.00	\$2,422.00



TORQUE DRIVE TAP HOLDERS

The torque clutch allows the tap to stop turning when it becomes dull or encounters any obstruction that might cause the tap to break. Adjustable for all types of materials. The quick change tap holder allows you to change from one size tap to another in 3 to 5 seconds. No gears, head height or stops to change.



Torque drive tap holder shown with tap



Tap adaptors change easily by sliding chuck sleeve until adaptor is free



9680516 Drill chuck with size 1 quick change adaptor

Item #	Description	List Price	SALE
Size 1 Adaptors			
9680500	0-6 Tap holder w/clutch	\$89.00	\$84.50
9680501	8 Tap holder w/clutch	\$89.00	\$84.50
9680502	10 Tap holder w/clutch	\$89.00	\$84.50
9680503	12 Tap holder w/clutch	\$89.00	\$84.50
9680504	1/4" Tap holder w/clutch	\$89.00	\$84.50
9680505	5/16" Tap holder w/clutch	\$89.00	\$84.50
9680506	3/8" Tap holder w/clutch	\$89.00	\$84.50

Drill Chuck w/Size 1 Quick Change Adaptor

9680515	5/16" Drill chuck on size 1 quick change adaptor	\$175.00	\$166.00
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9682081



9682101



9682121

POWERGRIND™ FINISHING

- Heavy duty capacitor motors that supply the extra current required during the start-up and operation under load
- Extended wheel-to-wheel clearance which allows longer items to be ground easily
- Dynamically balanced rotors and sealed bearings to minimize vibration and ensure smooth running
- Large adjustable tool rests for safe, efficient tilt and angle grinding
- Adjustable safety eye shields, and spark guards easily positioned with hurricane bolts
- Exclusive single port dust collection system, on selected models
- CSA approved OSHA compliant

Item #	Description	List Price	SALE
9682061	6" 1/3HP 115/230V grinder, no dust collection	\$116.00	\$104.00
9682062	6" 1/3HP 115/230V grinder w/dust collection	\$133.00	\$126.00
9682081	8" 3/4HP 115/230V grinder w/dust collection	\$232.00	\$209.00
9682101	10" 1HP 115/230V grinder w/dust collection	\$469.00	\$422.00

12" HEAVY DUTY BENCH GRINDERS

- 12" model comes standard with pedestal floor stand

Item #	Description	List Price	SALE
9682121	12" 2HP 220V, 1PH grinder w/pedestal stand & dust collection	\$1,074.00	\$966.60

POWERGRIND-XP FINISHING

- Industrial grade capacitor motors that supply the extra current required during the start-up and operation under load
- Dynamically balanced rotors and sealed bearings to minimize vibration and ensure smooth running
- Extended wheel-to-wheel clearance which allows longer items to be ground easily
- Large adjustable tool rests easily adjusted with hurricane bolts for safe, accurate grinding
- Comes with three tool rests – (2) standard flat top and (1) v-grooved top for sharpening drill bits with 118 degree drill point angle
- Adjustable spark guards and safety eye shields – easily positioned with hurricane bolts
- 36 and 120 grit grinding wheels
- Exclusive single port dust collection system with coated steel hose
- 6" & 8" models come standard with wheel dresser
- CSA/US approved and OSHA compliant

Item #	Description	List Price	SALE
9682072	6" 1/2HP 115/230V grinder w/dust collection	\$225.00	\$199.00
9682073	8" 1HP 115/230V grinder w/dust collection	\$415.00	\$259.00
9682075	10" 1HP 115/230V grinder w/dust collection	\$750.00	\$479.00



v-grooved tool rest



9682075



9682073



9682077



12" HEAVY DUTY BENCH GRINDERS

- 12" model comes standard with pedestal floor stand

Item #	Description	List Price	SALE
9682077	12" 3HP 230V, 3PH grinder w/pedestal stand & dust collection	\$1,455.00	\$1,199.00

POWERGRIND-VS™ SERIES FINISHING

At maximum rpm's they are built for heavy material removal, deburring and chamfering applications. At the lower rpm range they effectively handle the more delicate cleaning, polishing, sharpening and other finishing operations.

- Latest technology variable speed inverter delivering a broad range of continuous speeds to fit any application
- LED speed readout with "soft" touch on/off and variable speed control pad
- 3 hard speed switch settings 900 / 1800 / 3600 RPM for the 6" & 8" models and 900 / 1800 / 2400 RPM for the 10" model. Press the high or low switch button on touch pad to variably adjust the speed up or down in 100 RPM increments

Item #	Description	List Price	SALE
9682096	6" 1/2HP 115/240V Variable Speed Bench Grinder	\$340.00	\$306.85
9682097	8" 1HP 115/240V Variable Speed Bench Grinder	\$517.46	\$413.10
9682098	10" 1.5HP 115/240V Variable Speed Bench Grinder	\$860.00	\$776.15



9682097



9682096



9682098



SALE
\$563.00

POWERGRIND™ FINISHING COMBINATION BENCH & BELT GRINDER

Palmgren combined two machines into one. Ideal for grinding, deburring, polishing and finishing all types of parts, on any type of material.

- Adjustable work rests
- Dust collection ports
- Belt is adjustable in either the vertical or horizontal position or any position in-between
- Removes material 5% faster than traditional grinding
- OSHA compliant

Item #	Description	List Price
9682088	Belt & Bench Grinder Combo	\$593.00

VARIABLE SPEEDBUFFERS

At maximum rpm's they are built for intermediate blending, polishing and surface conditioning applications. At the lower rpm range they effectively handle the more delicate final finishing, polishing, buffing and surface finish refinement operations.

- Latest technology variable speed inverter delivering a broad range of continuous speeds to fit any application
- LED speed readout with "soft" touch on/off and variable speed control pad
- 3 hard speed switch settings 900 / 1800 / 3600 RPM for the 6" and 8" models and 900 / 1800 / 3000 RPM for the 10" model. Press the high or low switch button on touch pad to variably adjust the speed up or down in 100 RPM increments from the hard rpm setting

Item #	Description	List Price	SALE
9682106	6" 3/4HP 115/240V Variable Speed Bench Grinder	\$242.00	\$230.00
9682107	8" 1HP 115/240V Variable Speed Bench Grinder	\$260.00	\$247.00
9682108	10" 1.5HP 115/240V Variable Speed Bench Grinder	\$547.00	\$510.50



9682108



9682106



9682107

12" AND 16" 2-SPEED DUAL HEAD BUFFER / POLISHING LATHE

Designed to run convolute wheels, wire wheels, flap wheels, nylon wheels, fiber or bristle-brush wheels as well as buffing and polishing wheels. This buffer / polishing lathe will handle the most demanding polishing applications as well as fine detailing work.

- Direct drive power train
- Production duty 2 speed motor
- Versatility is enhanced by narrow and wide wheel capability with a wheel clamping range that allows the mixing and matching from narrow to wide wheels of different sizes and types
- Safety electrical system, push button power switch with keyed lock-out, emergency stop push button with electronic brake and 24 volts at all switches



Item #	Description	List Price	SALE
9682094	12" 2-Speed Dual Head Buffer	\$5,819.00	\$5,237.10
9682095	16" 2-Speed Dual Head Buffer	\$11,424.00	\$10,281.60



DRILL SHARPENER

Has the flexibility required to sharpen the largest range of dull or broken drill bits including split points and masonry bits from 1/8" to 3/4". Prismatic vise for precise centering of the bit to the grinding wheel. You can customize point angles and clearances to achieve the most efficient feed rates.

Drill bit capacity of 7/64" to 13/16", angle range of 90 to 150 degrees and relief angles of 0 to 20 degrees, and drill point concentricity of .001" lip to lip.

Item #	List Price	SALE
9682910	\$1,162.00	\$1,104.00



TOOL GRINDER

Palmgren's bench tool grinder is featured packed to form and grind tools, sharpen end mills and twist drills as well as dress up punches.

- Index head with 24 locking positions
- Micro dial for depth adjustment
- Includes both Aluminum Oxide and Diamond Wheel

- 5 pieces of a 5C collets 1/8", 3/16", 1/4", 3/8" & 1/2"
- Halogen work light

Item #	List Price	SALE
9682905	\$1,188.00	\$1,128.50



DRILL BIT SHARPENER

Adds versatility with adjustable chisel and relief angles, and the ability to create and sharpen split point bits. You can accurately sharpen a dull drill bit in under a minute. This economical precision sharpener operates quickly and intuitively.

- Sharpens standard twist and masonry bits from 7/72" to 1/2"
- Sharpens to a 118 degree point angle
- Designed and engineered to sharpen three of the most common drill bit types - standard point, split point and masonry bits
- Sharpens Carbide, Cobalt, High-Speed Steel, Black Oxide, TiN-Coated twist and masonry bits

Item #	List Price	SALE
9682906	\$127.00	\$114.00



16" DISC FINISHING MACHINE

Palmgren's 16" high performance disc finishing machine is built to handle general purpose to precision finishing applications. Small, medium to large parts are finished fast and effectively. The increased area of contact improves stock removal and finish on all types and sizes of workpieces.

- Production duty motor effectively finishes all types of materials
- Direct drive design with oversized drive shaft and sealed bearings
- Adjustable disc guarding
- Adjustable table - adjusts up and down and angles for precision finishing of both plain and compound miters
- Safety electrical system: power on light, drum start/stop/forward/reverse switch, on/off push button power switch with keyed lock-out, emergency stop button with electronic brake and 24 volts at all switches
- 3" dust collection port
- Fully machined and balanced disc runs true and vibration free
- Disc is mounted directly to an oversized motor shaft for maximum power and efficiency
- Precise and ideal for all sizes of workpieces
- Can grind, deburr, contour and finish workpieces made of metal, wood or plastics
- Heavy duty steel floor stand with hinged door for internal storage

Item #	Description	List Price	SALE
9681314	16" Disc Sander, 115V 1PH	\$1,820.00	\$1,730.00

20" DISC FINISHING MACHINE

Palmgren's 20" high performance disc finishing machine is built to handle general purpose to precision finishing applications. Small, medium to large parts are finished fast and effectively. The increased area of contact improves stock removal and finish on all types and sizes of workpieces.

- Production duty motor effectively finishes all types of materials
- Direct drive design with oversized drive shaft and sealed bearings
- Adjustable disc guarding
- Adjustable table - adjusts up and down and angles for precision finishing of both plain and compound miters
- Safety electrical system: power on light, drum start/stop/forward/reverse switch, on/off push button power switch with keyed lock-out, emergency stop button with electronic brake and 24 volts at all switches
- 3" dust collection port
- Fully machined and balanced disc runs true and vibration free
- Disc is mounted directly to an oversized motor shaft for maximum power and efficiency
- Precise and ideal for all sizes of workpieces
- Can grind, deburr, contour and finish workpieces made of metal, wood or plastics
- Heavy duty

Item #	Description	List Price	SALE
9681315	20" Disc Sander, 220V, 1PH	\$2,473.00	\$2,350.00
9681316	20" Disc Sander, 220V, 3PH	\$2,473.00	\$2,350.00
9681317	20" Disc Sander, 440V, 3PH	\$2,473.00	\$2,350.00





24" DISC FINISHING MACHINE

Medium to large parts are finished fast and effectively. The increased area of contact improves stock removal and finish on all types and sizes of workpieces.

- Direct drive design with oversized drive shaft and sealed bearings
- Fully enclosed adjustable guarding
- Adjustable tableSafety electrical system: on/off push button power switch with keyed lock-out, emergency stop button with electronic brake and 24 volts at all switches
- Fully machined and balanced disc runs true and vibration free
- Disc is mounted directly to an oversized motor shaft

Item #	Description	List Price	SALE
9681313	24" Disc Finishing Machine 230V 3PH	\$10,499.00	\$9,449.10
8681320	24" Abrasive Disc 36 Grit	\$21.00	\$21.00
9681321	24" Abrasive Disc 60 Grit	\$18.00	\$18.00
9681322	24" Abrasive Disc 80 Grit	\$17.00	\$17.00



SALE
\$255.50

9682401



SALE
\$415.00

9682402



SALE
\$564.00

9682404

BELT GRINDERS

These versatile machines grind, sand, finish, polish, deburr and contour all types of parts on any type of material. Built with a powerful capacitor motor for all day use.

- Belt is adjustable for use in either the vertical or horizontal position or any position in-between
- Simple belt tensioning and adjustment
- Full belt guard
- Dust collection port
- OSHA compliant

Item #	Description	List Price
9682401	Belt Grinder 1in.	\$269.00
9682402	Belt Grinder 2in.	\$437.00
9682404	Belt Grinder 4in.	\$594.00

2" TWO SPEED DUAL STATION BELT GRINDERS

Palmgren's 2" dual station universal belt grinder delivers enhanced grinding and finishing productivity all in one machine. With two belt heads you get the ultimate flexibility from roughing, to intermediate grinding and blending, to final finishing and polishing.

- Production duty 2-speed motor
- Direct drive design with oversized shaft and bearings
- Enclosed adjustable guarding
- Simple easy belt tensioning and tracking
- Lower drive drum is ribbed 60 Duro rubber
- Lower drum guard can be easily adjusted out of the way
- Hardened steel platen for platen grinding in vertical position only
- Graphite pad on platen for smooth belt operation and longer belt life
- Safety electrical system, push button on/off power switch with keyed lock-out, emergency stop push button with electronic brake and 24 volts at all switches

Item #	Description	List Price	SALE
9682415	2" x 98" Dual Station Belt Grinder	\$10,499.00	\$9,449.10
9681323	2" x 98" Abrasive Belt 36 Grit	\$8.00	\$8.00
9681324	2" x 98" Abrasive Belt 60 Grit	\$7.00	\$7.00
9681325	2" x 98" Abrasive Belt 80 Grit	\$6.00	\$6.00
9681326	2" x 98" Abrasive Belt 120 Grit	\$6.00	\$6.00
9681327	2" x 98" Abrasive Belt 220 Grit	\$6.00	\$6.00



6" AND 8" TWO SPEED BELT GRINDERS

It can be quickly converted from heavy stock removal to finishing operations by simply changing the belt. It is the ideal choice for all you shaping, forming, snagging, deburring, chamfering and finishing operations.

- Production duty 2-speed motor
- Direct drive design
- Fully enclosed adjustable guarding
- Tool rest
- Simple easy belt tension and tracking
- Lower drive drum is ribbed 60 Duro rubber coated for maximum belt traction
- Belt head adjusts vertically, horizontally and any position in-between
- Hardened steel platen with extra-large work area for flat long parts
- Safety electrical system: push button on/off power switch with keyed lock-out, emergency stop push button with electronic brake and 24 volts at all switches

Item #	Description	List Price	SALE
9682408	6" x 69" Belt Grinder	\$6,806.75	\$6,126.08
9681328	6" x 69" Abrasive Belt 36 Grit	\$17.00	\$17.00
9681329	6" x 69" Abrasive Belt 60 Grit	\$14.00	\$14.00
9681330	6" x 69" Abrasive Belt 80 Grit	\$13.00	\$13.00
9681331	6" x 69" Abrasive Belt 120 Grit	\$12.00	\$12.00
9682416	8" x 69" Belt Grinder	\$8,193.75	\$7,374.38
9681332	8" x 69" Abrasive Belt 36 Grit	\$20.00	\$20.00
9681333	8" x 69" Abrasive Belt 60 Grit	\$16.00	\$16.00
9681334	8" x 69" Abrasive Belt 80 Grit	\$15.00	\$15.00
9681335	8" x 69" Abrasive Belt 120 Grit	\$14.00	\$14.00



COMBINATION 6 X 9" BELT & DISC FINISHING MACHINE

- 6 x 48" belt with a 9" disc floor model with open stand

Item #	Description	List Price
9681093	6" x 48" Belt, 9" Disc bench finishing machine	\$682.00



COMBINATION BELT & DISC FINISHING MACHINES

Palmgren's combination belt and disc finishing machines are versatile and economical workshop tools. Dust collection shrouds for both the belt and the disc and the unit comes complete with a fully enclosed steel floor stand to protect the motor from dust.

- Belt operates in the horizontal or vertical position
- Both the belt and disc come with a cast iron tilting work table

Item #	Description	List Price	SALE
9681110	6" x 48" Belt, 10" Disc floor finishing machine	\$1,031.65	\$895.00
9681112	6" x 48" Belt, 12" Disc floor finishing machine	\$1,772.45	\$1,450.00



4" X 16" AND 8" X 24" TWO SPEED COMBINATION BELT & DISC FINISHING MACHINE

These machines will grind, sand, chamfer, deburr and finish all types of materials efficiently and accurately.

- Production duty – 2 speed motors / Direct drive design
- Fully enclosed adjustable guarding for both the belt and the disc
- Adjustable tables
- Safety electrical system: on/off push button power switch with keyed lock-out, emergency stop button with electronic brake and 24 volts at all switches

Item #	Description	List Price	SALE
9682413	4" x 16" Belt and Disc Finishing Machine	\$8,421.75	\$7,579.58
9681344	4.5" x 59" Abrasive Belt 36 Grit for 9682413	\$10.00	\$10.00
9681345	4.5" x 59" Abrasive Belt 60 Grit for 9682413	\$9.00	\$9.00
9681346	4.5" x 59" Abrasive Belt 80 Grit for 9682413	\$8.00	\$8.00
9681347	4.5" x 59" Abrasive Belt 120 Grit for 9682413	\$7.00	\$7.00
9681360	16" Abrasive Disc 36 Grit	\$10.00	\$10.00
9681361	16" Abrasive Disc 60 Grit	\$9.00	\$9.00
9681362	16" Abrasive Disc 80 Grit	\$8.00	\$8.00
9682414	8" x 24" Belt and Disc Finishing Machine	\$16,030.00	\$14,467.00
9681332	8" x 69" Abrasive Belt 36 Grit	\$20.00	\$20.00
9681333	8" x 69" Abrasive Belt 60 Grit	\$16.00	\$16.00
9681334	8" x 69" Abrasive Belt 80 Grit	\$15.00	\$15.00
9681335	8" x 69" Abrasive Belt 120 Grit	\$14.00	\$14.00
9681320	24" Abrasive Disc 36 Grit	\$21.00	\$21.00
9681321	24" Abrasive Disc 60 Grit	\$18.00	\$18.00
9681322	24" Abrasive Disc 80 Grit	\$17.00	\$17.00



6" X 12" BENCH SURFACE GRINDER

This economical 6" x 12" manual surface grinder has many features found on larger units and is a perfect choice for small shops, tool rooms and maintenance shops when close tolerances are needed.

- Meehanite cast iron construction
- Precision steel balls produce extremely smooth operation of table along the ways
- Hand scraped ways
- Spindle and motor are a direct drive design and are dynamically balanced minimum vibration
- Large easy to read dials

Item #	Description	List Price	SALE
9682122	6"x12" Manual Bench Surface Grinder	\$4,750.00	\$4,512.00
9682130	Permanent Magnetic Chuck	\$615.00	\$584.00
9670109	Heavy Duty Steel Floor Stand for 9682122	\$675.00	\$641.00



Shown with optional magnetic chuck and steel floor stand



Shown with optional magnetic chuck

8" X 18" SURFACE GRINDER

Palmgren's 8" x 18" manual surface grinder is an indispensable metalworking machine for toolrooms as well as production applications to produce high-quality close exacting tolerances and flat surfaces on workpieces.

- Meehanite cast iron construction
- High precision cartridge type spindle with lubricated for life multiple anti-friction bearings that are radially and axially pre-loaded for quiet vibration free operation and longer spindle life
- The spindle bearings are class 7 (P4) super precision angular contact ball bearings
- Runout at the spindle nose taper is less than 0.000070" (0.0020mm) TIR
- Double V hand scraped
- Precision steel balls produce extremely smooth operation of the table along the ways
- Automatic lubrication system
- Spindle and motor are a direct drive one piece design. The motor/spindle is dynamically balanced to attain a vibration displacement under 0.0006"/s (0.105mm)

Item #	Description	List Price	SALE
9682123	Manual 8" x 18" Surface Grinder	\$14,545.00	\$13,817.00
9682131	Permanent Chuck, Std. Size, 8" x 18"	\$1,060.00	\$1,007.00



LOW PROFILE DRILL PRESS VISES

Incredibly tough, compact vises with low overall height for tight-clearance applications.

- Four slots for secure mounting to machine table
- Base and bed parallel to 0.001"

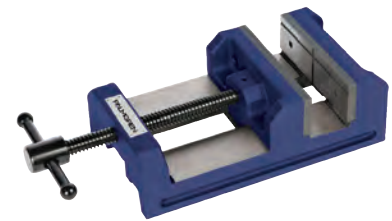
Item #	Description	List Price	SALE
9612303	Low profile drill press vise, 3"	\$47.50	\$45.13
9612403	Low profile drill press vise, 4"	\$72.50	\$68.88
9612601	Low profile drill press vise, 6"	\$164.50	\$156.28
9612801	Low profile vise, 8"	\$249.50	\$237.03

STANDARD DRILL PRESS VISES

These versatile, general purpose drill press vises can be used turned on either side or end.

- Center of base is open for holding work through body of vise
- Base and bed parallel to 0.001"

Item #	Description	List Price	SALE
9612352	Drill press vise, 4"	\$64.25	\$61.04
9612603	Drill press vise, 6"	\$140.00	\$133.00



QUICK RELEASE VISES

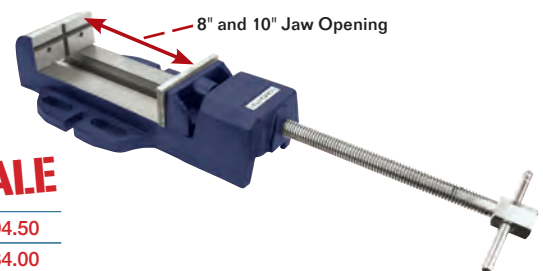
Quick-action mechanism for repetitive operations where the workpiece must be secured and released rapidly.

Item #	Description	List Price	SALE
9612321	Quick action vise, 3"	\$59.00	\$56.05
9612421	Quick action vise, 4"	\$188.50	\$179.08
9612621	Quick action vise, 6"	\$205.25	\$194.99
9612821	Quick action vise, 8"	\$300.00	\$285.00

RAPID ACTING, EXTRA CAPACITY MACHINE VISES

- 4" & 6" Jaw widths and 8" & 10" jaw opening
- Replaceable hardened and ground steel jaws with step
- Jaws have horizontal & vertical groove for holding round parts
- Four slots for secure mounting to machine table
- Base and bed parallel to 0.001"

Item #	Description	List Price	SALE
9612428	4" x 8" rapid acting, extra capacity machine vise	\$205.00	\$194.50
9612628	6" x 10" rapid acting, extra capacity machine vise	\$352.00	\$334.00



CRADLE ANGLE VISES

The fastest way to get your work from 0 to 90°.

- Trunnion style base
- Pin stops every 15° for quick angle setups
- Base and bed parallel to 0.004"
- Jaw surface is square to 0.002"

Item #	Description	List Price	SALE
9611250	Cradle-style angel vise, 3"	\$75.25	\$71.49
9611351	Cradle-style angel vise, 4"	\$107.20	\$101.84



CROSS SLIDE VISE

Makes workpiece positioning fast, easy and accurate.

- Dials are graduated in 0.1 mm increments
- Cross slide travel is 3-1/2" x 4"

Item #	Description	List Price	SALE
9630303	Cross vise, 3"	\$131.95	\$125.35
9630601	Cross vise, 6"	\$255.70	\$242.92
9630801	Cross vise, 8"	\$347.40	\$330.03

INDUSTRIAL ANGLE VISE WITH SWIVEL BASE

- Angle hinge is graduated in 1° increments from 0 to 90°
- Base and bed parallel to 0.004" - Jaw surface square to 0.002"
- Angle vise without the swivel base has two 5/8" mounting lugs located on the front and back end of the vise
- Swivel base provides complete 360° calibrated rotation and 5/8" keyway and two 5/8" bolt slots

Item #	Description	List Price	SALE
9611405	Industrial style angle vise w/swivel base, 4"	\$216.50	\$205.68
9611602	Industrial style angle vise w/swivel base, 6"	\$437.10	\$415.25



STANDARD MILLING VISES

These vises can be used on your machining centers as well as you basic manual machine tools.

- Base and bed parallel to 0.002"
- 360° swivel base
- Vise can be used without swivel base
- Hardened moveable jaw plates are square to 0.0015"
- Extra large jaw opening
- Hardened and ground bed
- 11/16" Keyway in vise base and swivel base

Item #	Description	List Price	SALE
9625404	Milling machine vise w/swivel base, 4"	\$215.45	\$204.68
9626603	Milling machine vise w/swivel base, 6"	\$423.70	\$402.52



STANDARD MILLING VISES

These vises can be used on your machining centers as well as you basic manual machine tools.

- Equipped with Dual Force anti-lift mechanism
- Friction reducing needle bearings reduce clamping friction
- Hardened jaw plates and vise bed
- Semi-hard steel screw
- Extra-large opening
- 60,000 PSI ductile iron castings

Item #	Description	List Price	SALE
9626604	Precision dual force milling machine vise w/swivel base, 6"	\$645.50	\$613.23



HEAVY DUTY TOOL STAND

Item # 9670101 - Heavy duty cast iron tool stand fits all bench grinders, buffers and belt grinders.

- Multi-hole top for easy securing of finishing tool to stand
- Quench pot.

Item #	Description	List Price
9670101	Bench grinder pedestal stand	\$126.40

SALE
\$120.08



Top viewed



9670141



9670181

MATERIAL SUPPORT STANDS

The Palmgren material support stands are made of heavy duty cast iron and steel for handling heavy loads for stock up to 2,000 pounds. A clamping mechanism on the column allows for quick and easy height adjustments. Locking screws provide added safety.

Item #	Description	List Price	SALE
9670141	Horizontal roller material support pedestal stand, 14"	\$167.00	\$158.50
9670181	V-roller material support pedestal stand, 18"	\$172.00	\$163.00
9670150	Material Roller Stand 40"	\$263.00	\$249.50
9670151	Material Roller Stand 79"	\$432.00	\$410.00

WARRANTY

C. H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship.

This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which it was intended. The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user. The Palmgren branded items carry the following warranties on parts:

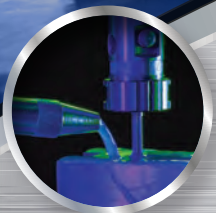
All vises, clamps, positioning tables, tombstones, jack screws and vise accessories – LIFETIME All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, arbor presses, abrasive finishing machines and work stands - 3 YEARS

The obligation of C. H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals. Failure to follow these instructions will void the warranty.

This warranty is the purchaser's exclusive remedy against C. H. Hanson for any inoperable parts in its product. Under no circumstances is C. H. Hanson liable for any direct, indirect, incidental, special or consequential damages including loss of profits in any way related to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.

All items in this promotion qualify for prepaid freight.

Prices subject to change without notice.



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MACHINERY SALES EVENT